GREATER TORONTO AREA 3Rs ANALYSIS

SOCIAL ENVIRONMENT TECHNICAL

APPENDIX - SCHEDULE H

**DRAFT - NOVEMBER 1993** 



Ministry of Environment and Energy



### GREATER TORONTO AREA 3Rs ANALYSIS SOCIAL ENVIRONMENT TECHNICAL APPENDIX - SCHEDULE H

Prepared by Hardy Stevenson and Associates for Fiscal Planning and Information Management Branch Ministry of Environment and Energy

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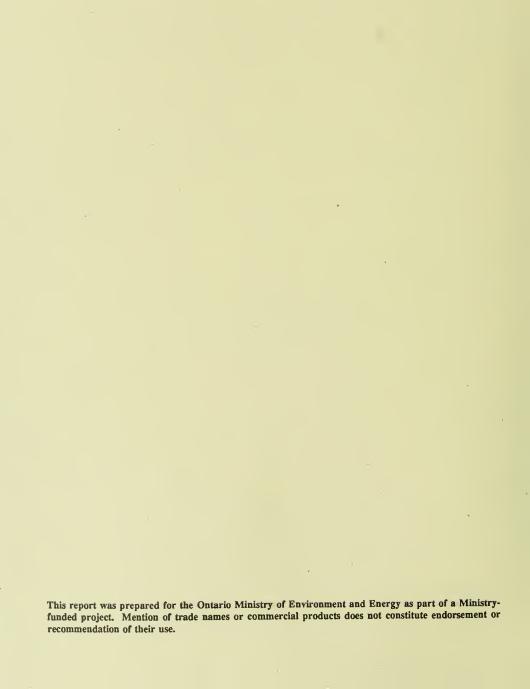


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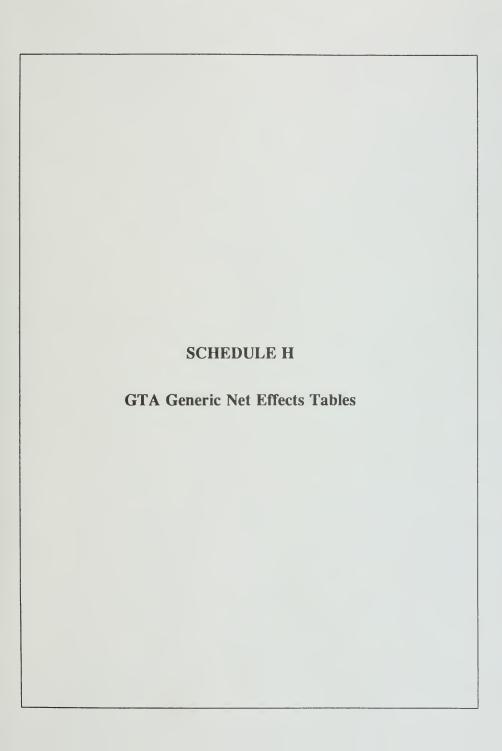


### GTA 3Rs ANALYSIS SOCIAL ENVIRONMENT TECHNICAL APPENDIX

LIST OF SCHEDULES

SCHEDULE H GTA GENERIC NET EFFECTS TABLES







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### GENERIC COMPONENTS NET EFFECTS TABLE H1.1

MUNICIPALITY: GTA CRITERION

: Potential Local Community Impacts

System Indicator

: Residential Existing : Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	. No effect	· Mitigation not required	· No effect
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Backyard composter distribution     programs     Topic 2 his programs	· No effect	· Mitigation not required	. No effect
targe 3-on composing units distributed to apartment and co-operative housing complexes			
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Denn-Off, etc.)			
as	· No effect	· Mitigation not required	· No effect
trees Special and weekly curbside collections of			
white goods  Drop-off depots for white goods			-
· Special curbside collection for bulky items			
· Permanent drop-off depot for HHW			
· Special HHW drop-off days			
· Mobile HHW depots			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
In-vessel composting of source separated organics Centralized windrow composting of leaf and yard waste Community Composting	Potential nuisance effects:  odour  - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - child safety - property devaluation - stigma for neighbourhood  Potential Health concerns Odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993, J. Scott, 1993)  Potential for odour and vermin problems at community composting facilities.	Existing facilities. Proper management of the material must be maintained in reducing odour and scavenging animal problems MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects.  Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993).  As management of the facility should be comply with all operational requirements the requirements should be limited experience in the limited experience in	Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds vermin and noise associated with centralized composting facilities. May be reduced with public education and consultation and proper management.  Potential for odour and vermin problems at community composting facilities.
		composting on a large scale.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued)  In-vessel composting of source separated organics  Centralized windrow composting of leaf and yard waste  Community Composting		Research does not indicate an association between occupational health problems and composting because does-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology). Proper supervision of community composters	
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre     Non-profit reuse centre     Charitable reuse centres     Food reuse organization     Special goods exchange days	Traffic concerns     Visual effect of large bins in plazas     Contres may not be desirable in all areas due to stigma	Locate Reuse Centres in areas of compatible land use	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	Potential nuisance effects:  litter  visual  noise  childrens safety  property devaluation  lilegal dumping at centre.	Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993).  Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)  Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere.  Local residents should be on a monitioning/management committee.	Potential minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs	-		
· Processing centre for dry recyclables		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to sting design,	
		operations and recanology).  Public consultation program established with local residents to ensure all concerns and effects are addressed.	

Residential Recycling Depots and Transfer Stations			
· Drop-off depot for dry recyclables · Depots located at transfer stations/landfill	Potential nuisance effects: - litter	Mitigation will need to encompass proper siting and management.	· Potential minor nuisance effects at some facilities.
	- traffic, truck queuing	should be sited in areas of	
	- noise	compatible land use. The siting	
	- property devaluation	facilities will need to address: heavy	
	- illegal dumping at centre	truck traffic, noise, visibility, truck	
		queuing, litter, and the possibility of excess storage (Lesnicki 1993)	
		· Management: The Facility will need	
		to be managed in such a way as to	
	-	control dust, litter, odour, rodents	
		and other pests, and excess	
		materials. Many of these effects	
		could be controlled by proper site	
		design and planning (berms, fences,	
		etc.).	
		· Mitigation measures will need to be	
		developed on a system-wide basis	
		for the management of excess	
	,	materials as a result of over-supply	
		of some material markets. While	
		these materials may not be kept at	
		the MRFs, storage will be required	
		elsewhere.	
		· Some effects likely to be mitigated	
		over time due to greater familiarity	
		with effects and mitigation (e.g.	
•		improvements to siting design,	
		operations and technology).	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations (continued)			
Drop-off depot for dry recyclable     Depots located at transfer stations/landfill		· Local residents should be on a monitoring/management committee	
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	· No effect	· Mitigation not required	· No effect

# TABLE H1.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential

: OTA: : Potential Local Community Impacts

System : Residential Existing Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage	. No effect	· Muigation not required	. No effect
Residential Recycling and Collection Curbside collection of Blue Box Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	Elderly and physically challenged may have difficulty in setting out recyclable and compostable material for pick-up and using drop-off facilities.	Provide maximum convenience possible	Elderly and physically challenged may have difficulty in setting out recyclable and compostable material for pick-up and using drop-off facilities.
Residential Leaf and Yard Waste Collection Scasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Very minor nuisance effects associated with odour and physical strain on elderly.	· Mitigation not required	<ul> <li>Very minor nuisance effects associated with odour and physical strain on elderly.</li> </ul>
Other Residential Waste Diversion (HIIW, Toxic Taxt, Pilot WetDry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Possible occupational safety concerns with drivers and handlers of HHW.	Education program for drivers and handlers of HHW	Minor possible occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  In-vessel composting of source separated organics  Centralized windrow composting of leaf and yard waste  Community Composting	Although the research (Curtis et al., 1991) indicates that properly managed compositing produces a safe product, there are:     Possible health effects on allergy sufferers, people with respiratory ailments, people with immunodeficiencies.     Possible employee health concerns (Taylor, 1993).	Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction. Prudence dictates that employees should practise proper hygiene and wear protective clothing.  Itealth effects monitoring for employees and high-risk residents should be an operational condition.	Employees at composting facilities may be exposed to health and safety hazards. Should be minimized by education. Could be mitigated by proper design and control.  Potential for health effects on allergy sufferers, people with immuno deficiencies, etc.  Magnitude of effect may be minimized by proper siting considerations of new facilities and proper management.
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Food contamination issue and liability concerns of donors (Wrigey, 1993).     Positive effect for low-income and disabled groups     Possible transfer of pests in reuse centers, exchange days, etc.	Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials.	No effect
Public MRFs  Processing centre for dry recyclables	· Possible employee health/safety concerns	· Educate/train employees on health and safety hazards and precautions	Possible employee health and safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables  Depots located at transfer stations	<ul> <li>Possible employee health/safety concerns</li> </ul>	· Educate/train employees on health · No effect and safety hazards and precautions	· No effect
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	· No effect	· Mitigation not required	· No effect

# TABLE H1.3 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential Local Comm

: Potential Local Community Impacts Ind

System: Residential Existing Indicator: Potential Effects on Community

Component Category/Components	Potential Effects	Mitigatlon/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage	· No effect	Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	Potential for community pride from participation	· Mitigation not required	Potential for community pride from participation
Residential Leaf and Yurd Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes	. No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Failure of programs tends to have a negative effect on community image. For example, couches, mattresses, etc. disposed in vacant lots.	Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them.     Assistance in organization of community garage sales, fica markets etc.      Enforcement for illegal dumping	Minor negative stigma effect on community image from illegal dumping
Composting Facilities  In-vessel composting of source separated organics  Centralized windrow composting of leaf and yard waste  Community Composting	Possible stigma effect in some communities	State-of-the-art odour control should be an operational condition	· Possible stigma effect in some communities
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	· Possible stigma effect in some communities	Location of the reuse centres in suitable land use area	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs  Processing centre for dry recyclables	Possible stigma effect in some communities	· Mitigation as "Potential Effects on Residents"	Possible stigma effect in some communities. Magnitude of effect dependent on site location and management of the facility
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations/landfills	· Possible stigma effect in some communities	- Mitigation as "Potential Effects on Residents"	Possible stigma effect in some communities. Magnitude of effect dependent on site location and management of the facility
Residential Promotion and Education 3Rs promotion and education program Consumer education program	· Possible increase in community pride	· Mitigation not required	· Possible increase in community pride



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# TABLE H1.4 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION : Potential Local Community Impacts

System : Kee
System : Kee

System : Residential Existing Indicator: Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitlgation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage	· No effect	· Mitigation not required	· No cífect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	. No effect	· Mitigation not required	. No effect
Residential Léaf and Yard Waste Collection  · Curbside collection of leaf and yard waste  · Drop-off depot for leaf and yard waste	. No cífeci	. Mitigation not required	. No effect
Residential Household Composting  · Backyard composter distribution programs  · Large 3-bin composting units distributed to apartment and co-operative housing complexes	. No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects .
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)	·		
· Special curbside collections of Christmas trees	. No effect	· Mitigation not required	· No effect
<ul> <li>Special and weekly curbside collections of white goods</li> </ul>			
<ul> <li>Drop-off depots for white goods</li> <li>Special curbside collection for bulky items</li> </ul>			
Permanent drop-off depot for HHW     Special HHW drop-off days			
· Toxic Taxi service			
· Mobile HHW depots			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
· In-vessel composting of source separated	· Potential nuisance effects:	· Existing facilities: Proper	· Potential odour and health
organics	- odour	management of the material must be	concerns and minor nuisance
· Centralized windrow composting of leaf	- scavenging animals and birds	maintained in reducing odour and	effects such as traffic, litter, birds
and yard waste	- visual	scavenging animal problems.	vermin and noise associated with
Community Composting	- illegal dumping	MOEE proposed regulations	centralized composting facilities.
	- traffic, truck queuing	(MOEE, 1993) do not appear to	May be reduced with public
	- noise	mitigate all of the documented	education and consultation and
	- child safety	effects.	proper management.
	- property devaluation	· Composting sites should be located	· Potential for odour and vermin
	- stigma for neighbourhood	in areas of compatible land use. The	problems at community
		siting considerations for these types	composting facility
	· Potential Health concerns	of facilities should address: odour,	
	Odour effects have been significant	heavy truck traffie, truck queuing,	
	enough to have leaf and yard waste	nuisance and litter.	
	composting facilities closed (RIS,	· State-of-the-art odour control	
	1993; J. Scott, 1993)	features should be design	
	· Potential for odour and vermin	requirements. Local residents should	
	problems at community composting	be on the management/monitoring	
	facility	committees (Lesnicki, 1993).	
		As management of the facility should	
		comply with all operational	
		requirements, the requirements	
		should be reviewed frequently due to	
		the limited experience in composting	
		on a large scale.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued)  In-vessel composting of source separated organics Centralized windrow composting of leaf and yard waste Community Composting		Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993). Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to stiring design, operations and technology). Proper supervision at community composting.	
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Minor nuisance related effects on neighbouring features and businesses  Visual blight/image effect	· Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
• Processing centre for dry recyclables	Potential nuisance effects:  - litter  - visual  - traffic, truck queuing  - noise  - children safety  - property devaluation  - illegal dumping at centre	Mitigation will need to encompass proper siting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere.	Potential minor nuisance effects such as traffic, litter and noise.  Effects dependent on operation, type of material, sensitivity and number of people near facility.
		Local residents should be on a monitoring/management committees.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs (continued)			
Processing centre for dry recyclables	-	Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).  Public consultation program established with local residents to ensure all concerns and effects are	
		addressed.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations		-	
Depois located at transfer stations/landfill	Potential nuisance effects:  Inter  visual  traffic, truck queuing  noise  child safety  property devaluation  illegal dumping at centre	Mitigation will need to encompass proper siting and management. Siting: Depots and stations should be sited in areas of compatible land use. The facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, noise, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some materials may not be kept at the depots, storage will be required	at some facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations (continued)			
Drop-off depot for dry recyclable     Depots located at transfer stations/landfill		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).  Local residents should be on a	
Residential Promotion and Education		monitoring/management committee.	
3Rs promotion and education program     Consumer education program	. No effect	· Mitigation not required	No effect

# TABLE H1.5 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential For

No : Potential For Broad Social Impact

System: Residential Existing Indicator: Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  Bins may attract nuisances if not picked up often.	Ensure the provision of information and educational services for new residents (Environics, 1990). This must be a continual effort to address turnover and increase in future densities.  Ensure regular pick-up.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride  Encourages positive local action	· Mitigation not required	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Backyard composter distribution programs	Positive social and lifestyle effect, people willing to do and learn more.	Address complaints (e.g., ill-fitting lids insufficient volume) of users	Positive social and lifestyle effect,     people willing to do and learn
· Large 3-bin composting units	source of personal and community	· Provide kitchen containers, home	more, source of personal and
distributed to apartment and co-	pride	delivery of composters, on-going	community pride
operative housing complexes	<ul> <li>Encourages positive local action</li> </ul>	subsidies (Environics, 1990;	· Potential for minor lifestyle
	<ul> <li>Inconvenience and annoyance for a</li> </ul>	Maclaren, 1990; Metropolitan Works	inconveniences associated with
	minority of people: (e.g, ill-fitting lids,	Committee, 1992).	backyard composters
	insufficient volumes, lack of space,	· On-going education for proper use.	
	odours, pests, scavenging animals)		
	<ul> <li>Program may have substantial</li> </ul>		
	potential to increase waste diversion		٠
	(MacLaren, 1990; Environics, 1990)		

Component Category/Components
White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping     Consumers may become much more concerned about size and durability of appliances and furniture     Residents may become more aware of IHW and white goods management and change purchasing attitudes
. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse.centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	In some instances, has social welfare benefits  May contribute to acceptance of using repaired/second hand items rather than buying new products  Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiweness; and provide communal garage sales, flea markets, bazaars, etc.	Provide incentives for establishing reuse centres and for holding "garage" sales	Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. In some instances, has social welfare benefits in Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness through communal garage sales, flea markets, bazaars, etc.
Public MRFs  Processing centre for dry recyclables	No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations/landfills	. No effect	. Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	Potentially encourages positive changes to conserver and waste diversion attitudes; emphasizing reduction and reuse, as well as recycling, could lead to lifestyte	<ul> <li>Expand and refine promotion and education programs to target non- participating groups and to allow for changes in demographic make-up of GTA (Environics, 1990; Morgan-</li> </ul>	Potentially positive effect;     encourages positive changes to     conserver and waste diversion     attitudes; emphasizing reduction     and reuse, as well as recycling,
	change Could increase demand for packaging reduction (Environics, 1990)	Fraser, 1993).  • Promotional/Educational programs should be based on successful	could lead to lifestyle change
		programs identified in the 3Rs literature (e.g., Folz & Hazlett, 1990). For example, pamphlets and	
		brochures (in utility bills, etc.) and community information meetings.  The role of the schools could be critical, particularly for new	
		Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are	•
		increasingly being led by Principals & V-P-'s eager to spread an environmental message.	



# TABLE H1.6 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA System: Existing CRITERION: Potential For Broad Social Impact Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage	No effect	· Mitigation not required	. No cífect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	Minor direct employment gains, primarily in low skill jobs, are likely in recycling collection. Indirect effects could include both short and longtern changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain.  Net long term employment effects uncertain. Will be partly dependent on the ability to capture "Green" jobs and not lose jobs in other sectors as a result of 3Rs.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and about to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green"	primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and longterm changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. It long term employment effects uncertain. Wet long term employment effects uncertain. Will be partly dependent on the ability to capture "Green" jobs and not lose jobs in other sectors as a result of 3Rs.
		, ,	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	. No effect
Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Community composting	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods	. Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and term changes in secondary and tertiary employment. Magnitude,	<ul> <li>A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these chances, many will</li> </ul>	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and term changes in secondary and term changes in secondary and term changes in secondary.
Drop-off depots for white goods Special curbside collection for bulky items	timing and direction of effects is uncertain	not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a	timing and direction of effects is uncertain.
Permanent drop-off depot for IHHW Special IHHW drop-off days Toxic Taxi service		partnership between government, business and labour to facilitate this change in attitude. Education and	`
· Mobile HHW depots		re-training will be key components to help the working population adapt to new and evolving sectors in the	
Composting Facilities		"green" economy.	-
Centralized windrow composing of leaf and yard waste     In-vessel composting of source     separated organics	<ul> <li>Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could</li> </ul>	· Mitigation not required	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the propram. Indirect effects could
· Community Composting	include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.		include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

	Basemein L'Wante	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities			
Municipal reuse centre Private reuse centre Non-profit reuse centre	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could	· Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could
Charitable reuse centres     Food reuse organization     Special goods exchange days	include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.		include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Public MRFs			-
Processing centre for dry recyclables	Direct employment gains, primarily in low skill jobs, are likely in at MRFs and in recycling industries. Indirect effects could include both short and	· Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely in at MRFs and in recycling industries. Indirect effects could include both
	long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.		short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Residential Recycling Depots and Transfer Stations			. ••
Drop-off depot for dry recyclable     Depots located at transfer     stations/landfills	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long form	· Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term
	changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.		changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
3Rs promotion and education program Consumer education program	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	has major implications for the economy and employees. While many persons in society will adapt casily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
		green economy.	



#### GENERIC COMPONENTS NET EFFECTS TABLE H1.7

MUNICIPALITY: GTA CRITERION

: GTA System : Residential Existing : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage	. No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	Minor direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment) and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	Minor direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard     waste     Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	· No effect
Residential Household Composting			
Backyard composter distribution     programs     Large 3-bin composting units distributed     to apartment and co-operative housing     complexes	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable.	· Mitigation not required	are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a. reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.
	products in the GTA.		

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depoids for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depois	Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes.  Magnitude, timing and direction of effects is uncertain, over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mereer, 1993).	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing grasp the opportunities for marketing "green" systems and technologies.	Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.
		nationally and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Minor direct economic benefits are likely at compositing, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is timing and direction of effects is initiative could lead to the development of marketable "green" products in the GTA.	• Mitigation not required	Minor direct economic benefits are likely at composting, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable. "green" products in the GTA.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. For example, products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.	· Mitigation not required	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry recyclables	Provides the infrastructural support for recycling materials by the private and public sector.	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Provides the infrastructural support for recycling materials by the private and public sector.	· Mitigation not required	Provides a minor short term economic benefit in the construction sector Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors

Component Category/Components	Potential Effects	Mitigation/Enhancement .	Component Net Effects
Residential Promotion and Education			
SRs promotion and education program     Consumer education program	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	Mitigation not required	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of
			effects is uncertain.

# GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA CRITERION

: GTA System : Residential Existing : Potential For Broad Social Impact Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industries

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage	. No effect	Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	Minor positive effect through support of recycling	. Mitigation not required	. No effect
Residential Leaf and Yard Waste Collection  Curbside collection of Icaf and yard waste  Drop-off depot for Icaf and yard waste	. No effect	Mitigation not required	. No effect
Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes	· No effect	Mitigation not required	. No effect

		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Component Net Effects	In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods.	. No effect	· No effect
Mitigation/Enhancement	Retail stores could develop buyback programs for large and bulky items. The consumer would then not be required to disperse items.	• Mitigation not required	· Mitigation not required
Potential Effects	The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products). Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable.	. No effect	· No effect
Component Category/Components	Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separate organics Community Composting	Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry recyclables	· No effect	Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	· No effect	· Mitigation not required	. No effect
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	. No effect	· Mitigation not required	. No effect



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# TABLE H1.9 GENERIC COMPONENTS NET EFFECTS.

MUNICIPALITY: GTA
CRITERION: Distribution of S

N : Distribution of Social Costs and Benefits I

System: Residential Existing Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups.

F					
	Component Net Effects	. No effect	· No effect	. No effect	. No effect
	Mitigation/Enhancement	· Mitigation not required	· Mitigation not required	. Mitigation not required	· Mitigation not required
	Potential Effects	· No effect	. No effect	. No effect	. No effect
	Component Category/Components	Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multifamily units Self haul of garbage	Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multifamily units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Residents of some municipalities are provided with HHW, white and bulky goods collection, while others are not.	Mitigation not required	Minor effect in different level of service for white goods collection in some municipalities
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting	Local residents and businesses may receive nuisance effects related to composting for all region residents	Site the composting facility in a non-residential area and away from sensitive industry and committed uses.  Develop appropriate mitigation/ compensation for site related impacts  Address equity issue aspect of the siting process	Minor negative distribution effect on local community.
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Specjal goods exchange days	Positive effect for lower income groups as more low cost items made available and adds potential market for their goods	Mitigation not required	Positive effect for lower income groups as more low cost items made available and adds potential market for their goods

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>	Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility.</li> </ul>
Residential Recycling Depots and Transfer Stations	0		
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	<ul> <li>Potential negative distribution effects on some groups living near facility.</li> </ul>	Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility.</li> </ul>
Residential Promotion and Education			
3Rs promotion and education program Consumer education program	· No effect	Mitigation not required	. No effect

# TABLE H1.10 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: Distribution of Social Costs and Benefits Indicato

System : Existing Indicator: Distribution of Lifestyle Effects

. stributional effect	
No effect  Minor lifestyle distributional effect	No effect
. Minor lifestyle	
· Mitigation not required	
•	
	Popular and environmentally
	aterials ·
Expanding curbside collection Collection of hins of recyclables from multi-	Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection Collection of bins of recyclative from mult
Expanding cu	Residential Recycling a Curbside collection of Expanding curbside of

Other Residential Waste Diversion (HIW, Took Taxi, Pitot WetDro, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas rivers and weekly curbside collections of Christmas rivers Special and weekly curbside collections of white goods white goods for white goods of the goods for white goods of the goods	Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
v composting of leaf and required right of source separated sting string rivities rivities root of fect rivities root of a string rivities root of str	trial Waste Diversion (HHW, for Wet/Dry, White Goods site Goods Drop-Off, etc.) sside collections of Christmas weekly curbside collections of pots for white goods side collection for bulky items drop-off depot for HHW widep-off days service. Widepots	No effect	. Mitigation not required	· No effect	
No effect Mitigation not required	acilities windrow composting of leaf and mposting of source separated Composting	· No effect	· Mitigation not required	. No effect	
	s and Activities euse centre se centre reuse centre cruse centre organization ds exchange days	No effect	· Mitigation not required	· No effect	
· Processing centre for dry recyclables · No effect · Mitigation not required · No effect	centre for dry recyclables	. No effect	· . Mitigation not required	. No effect	

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	. No effect	· Mitigation not required	. No effect
Residential Promotion and Education			
3Rs promotion and education program Consumer education program	. No effect	· Mitigation not required	. No effect



#### GENERIC COMPONENTS NET EFFECTS TABLE H1.11

MUNICIPALITY: GTA CRITERION

System : Residential Existing Indicator: Potential Future Generation Effects of System : Distribution of Social Costs and Benefits

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	Minor positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment through recycling.	Mitigation not required	Minor positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Costly to start-up and establish but may have environmental benefits in the long run. Uncertain (may be better to have the yard waste composted at the household e.g., mulch leaves and grass branches) (Lesnicki, 1993)	Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term.	· Effect uncertain

		oair,	
Component Net Effects	Positive effect through support for change in behaviour to reduction and reuse	Positive effect through support for change in behaviour to repair, reuse and proper disposal	. Minor positive future generational effect
Mitigation/Enhancement	· Mitigation not required	Mitigation not required	Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term.
Potential Effects	Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse.	Positive effect through support for change in behaviour to repair and reuse and proper disposal	Costly to start-up and establish but environmentally and possibly economically beneficial in the long run
Component Category/Components	Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Other Residential Waste Diversion (IIHW, Toxic Taxt, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre     Non-profit reuse centre     Charitable reuse centres     Food reuse organization     Special goods exchange days	Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future.	Province to consider removing     Provincial Sales Tax or other     provincial taxes for the sale of used     goods	<ul> <li>Positive effect through the support for repaired reuse of good, and subsequent reduction of resource use.</li> </ul>
Public MRFs			
Processing centre for dry recyclables	Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long	· Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour.
	run. Required support for recycling. Current generation paying the cost for altering behaviour to a more sustainable society.		
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer     stations/landfills	Costly to start-up but environmentally and possibly economically beneficial in the long run.  Current generation behaviour paying cost for altering behaviour to a more sustainable society.	· Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour.
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	Should have positive effects in changing current attitudes and behaviours to a more sustainable society.	Education material could emphasize the benefits to future generation of 3Rs actions today	Positive effects in changing current attitudes and behaviour to a more sustainable society







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# TABLE H2.1 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential Local Com

N : Potential Local Community Impacts

System: Residential Existing/Committed Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	Effects uncertain with recycling legislation     Other components; No effect	Mitigation not required	Effects uncertain with recycling legislation     Other components; No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	· No effect	· Mitigation not required	. No effect
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	· No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes	. No effect	Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
· Special curbside collections of Christmas trees	· No effect	· Mitigation not required	· No effect
Special and weekly curbside collections of white goods			
Drop-off depots for white goods Special curbside collection for bulky items			
Special HHW drop-off days	-		
Toxic Taxi service     Mobile HHW depots			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste In-wessel composting of source separated organics Community Composting	Potential nuisance effects:  - odour  - scavenging animals and birds - visual - illegal dumping - traffic, truck queuing - noise - noise - child safety - property devaluation - stigma for neighbourhood - Health concerns - Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (RIS, 1993, J. Scott, 1993) - Possible displacement of residents for the location of a new facility Potential for odour and vermin problems at composting facility.	Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems.  MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects.  Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffie, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnicki, 1993).  As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale.  Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility	Potential odour and health concerns and minor nuisance effects such as traffic, litter, birds, vermin and noise associated with centralized composing facilities. May be reduced with public education and consultation and proper management.  Possible displacement of residents for the location of a new facility.  Poential for odour and vermin problems at community composting facility.
		(Taylor, 1993).	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued)  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).  Proper supervision of community composters	
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	<ul> <li>traffic concerns</li> <li>visual effect of large bins in plazas</li> <li>centres may not be destrable in all areas due to stigma</li> </ul>	Locate reuse centres in areas of compatible land use.	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs	Potential nuisance effects:     litter     visual	Mitigation will need to encompass proper siting and management. Siting: MRPs should be sited in areas.	Potential minor nuisance effects such as traffic, litter and noise. Effects dependent on one-ration
	- traffic, truck queuing	of compatible land use. The siting	type of material, sensitivity and
	- noise	considerations for these types of	number of people near facility.
	- property devaluation	truck traffic, noise, visibility, truck	· Possible displacement of
	- illegal dumping at centre	queuing, litter, and the possibility of	residents from the siting of a
	D	excess storage (Lesnicki, 1993).	new facility.
	from the siting of a new facility.	Management: The Facility will need to be managed in such a way as to control	
		dust, litter, odour, rodents and other	
		pests, and excess materials. Many of	
		these effects could be controlled by	
		proper site design and planning (berms,	
		fences, etc.)	
		<ul> <li>Mitigation measures will need to be</li> </ul>	
		developed on a system-wide basis for	
		the management of excess materials as	
		a result of over-supply of some material	
		markets. While these materials may not	
		be kept at the MRFs, storage will be	
		required elsewhere. Local residents	
		committees	
		Some effects likely to be mitigated over	
		time due to greater familiarity with	
		effects and mitigation (e.g.	
		improvements to siting design,	
		operations and technology).	
		Public consultation program established	
		with local residents to ensure all	
		concerns and effects are addressed.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables     Depots located at transfer stations/landfills	Potential nuisance effects:  - litter  - visual  - traffic, truck queuing  - noise  - child safety  - property devaluation  - illegal dumping at centre  - Possible displacement from new facilities	Mitigation will need to encompass proper siting and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage. Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controll by proper site design and planning (berms, fence, etc.)  Mitigation measures will need to be developed on a system-wide basis for the management of excess material as a result of over-supply of some material markets. While these materials markets. While these materials as storage will be required elsewhere.  Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).	Potential minor nuisance effects at some facilities Possible displacement from new facilities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	. No effect	· Mitigation not required	. No effect



## TABLE H2.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential Local (

ON : Potential Local Community Impacts

System : Residential Existing/Committed Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling centres Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Elderly and physically challenged may have difficult time setting out possible recyclable material for pick-up and using drop-off facilities.	Provide maximum convenience possible	Elderly and physically challenged may have difficult time setting out recyclable material for pickup and using drop-off facilities.
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Backyard composter distribution programs     Large 3-bin composting units distributed to apartment and co-operative housing complexes	<ul> <li>Very minor nuisance effects associated with odour and physical strain on elderly.</li> </ul>	· Mitigation not required	<ul> <li>Very minor nuisance effects associated with odour and physical strain on elderly.</li> </ul>
Other Residential Waste Diversion (HIIW, Toxic Taxi, Pilot WevDry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Possible occupational safety concerns with drivers and handlers of HHW.	HHW education for drivers and handlers	Minor possible occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting	Although the research (Curtis et al., 1991) indicates that properly managed composting produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory aliments, people with respiratory aliments, possible employee health concerns (Taylor, 1993).	Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction.  Prudence dictates that employees should practise proper hygiene and wear protective clothing.  Health effects monitoring for employees and high-risk residents should be an operational condition.	Employees at compost facilities may be exposed to health and safety hazards. Should be minimized by education. Could be mitigated by proper design and control.      Potential for health effects (odours) on allergy sufferers, people with immuno-deficiencies, etc. Magnitude of effect may be minimized by proper sting considerations of new facilities and proper management.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Food contamination issue and liability concerns of donors (Wrigley, 1993)     Positive effect for low-income and disabled groups     Possible transfer of pests in reuse centers, exchange days, etc.	Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials.	. No effect
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRFs	· Possible employce health/safety concerns	· Educate/train employees on health and safety hazards and precautions	<ul> <li>Possible employee health/safety concerns. Should be minimized by mitigation.</li> </ul>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
<ul> <li>Drop-off depot for dry recyclable</li> <li>Depots located at transfer stations/landfills</li> </ul>	· Possible employee health/safety concerns	Educate/train employees on health and safety hazards and precautions	Possible employee health/safety concerns. Should be minimized by mitigation.
Residential Promotion and Education			
· 3Rs promotion and education program · Consumer education program	· No effect	· Mitigation not required	. No effect

## GENERIC COMPONENTS NET EFFECTS TABLE H2.3

MUNICIPALITY: GTA CRITERION

: Potential Local Community Impacts

Indicator: Potential Effects on Community System: Residential Existing/Committed

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units in three streams  Self hauf of garbage  Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Possible increase in community pride from participation	· Mitigation not required	Possible increase in community pride from participation
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No estect	· Mitigation not required	. No effect

Component Net Effects	· No effect	Potential for minor negative stigma effect on community image from illegal dumping	· Possible stigma effect in some communities
Mitigation/Enhancement	· Mitigation not required	Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them.     Assistance in organization of community garage sales, flea markets, etc.     Enforcement for illegal dumping	· State-of-the-art odour control should be an operational condition
Potential Effects	. No effect	Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots.	· Possible stigma effect in some communities
Component Category/Components	Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wev(Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas Frees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre     Non-profit reuse pentre	Possible stigma effect in some communities.	<ul> <li>Location of the reuse centres in suitable land use area.</li> </ul>	No effect
Charitable reuse centres     Food reuse organization     Special goods exchange days			
Public MRFs			
Processing centre for dry recyclables     Construct new MRF or improve/expand     existing MRF's	Possible stigma effect in some communities.	· Mitigation not required	<ul> <li>Possible stigma effect in some communities. Magnitude of effect dependant on site location and management of the facility</li> </ul>
Residential Recycling Depots and Transfer Stations			-
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	· No effect	· Mitigation not required	. No effect
Residential Promotion and Education			
3Rs promotion and education program Consumer education program	Possible increase in community     pride	· Mitigation not required	· Possible increase in community pride

## GENERIC COMPONENTS NET EFFECTS TABLE H2.4

MUNICIPALITY: GTA CRITERION

: Potential Local Community Impacts

System: Residential Existing/Committed Indicator: Potential Effects on Community Features and Businesses

Component Category/Components ,	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection			
Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Possible nuisance effects on community features and businesses from traffic and hauling.	Planning and co-ordination of haulage system to minimally disrupt local community features and businesses	Possible nuisance effects on community features and businesses from traffic and hauling.
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and cooperative housing complexes	. No effect	Mitigation not required	. No effect
Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Creation LHIW drop off depot for HHW	No effect	Mitigation not required	. No effect
Toxic Taxi service  Mobile HHW depots			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
· Centralized windrow composting of leaf	· Potential nuisance effects:	· Existing facilities: Proper management	· Potential odour and health
and yard waste	- odour	of the material must be maintained in	concerns and minor nuisance
In-vessel composting of source	<ul> <li>scavenging animals and birds</li> </ul>	reducing odour and scavenging animal	effects such as traffic, litter, birds,
separated organics	- visual	problems.	vermin and noise associated with
· Community Composting	- illegal dumping	MOEE proposed regulations (MOEE,	centralized composting facilities.
	- traffic, truck queuing	1993) do not appear to mitigate all of	May be reduced with public
	- noise	the documented effects.	education and consultation and
	- child safety	· Composting sites should be located in	proper management.
	- property devaluation	areas of compatible land use. The	· Possible displacement of
	- stigma for neighbourhood	siting considerations for these types of	community features and businesses
	- Health concerns	facilities should address: odour, heavy	for the location of a new facility.
		truck traffic, truck queuing, nuisance	· Potential for odour and vermin
	<ul> <li>Potential odour effects have been</li> </ul>	and litter.	problems at community
	significant enough to have leaf and	State-of-the-ari odour control features	composting facility
	yard waste composting facilities	should be design requirements.	
	closed (R1S, 1993; J. Scott, 1993)	People whom work at local businesses	
	Possible displacement of	and features should be on the	
	community features and businesses	monitoring/management committees	
	for the location of a new facility.	(Lesnicki, 1993).	
		As management of the facility should	
	Potential for odour and vermin	comply with all operational	
	problems at community	requirements, the requirements should	
	composting facility	be reviewed frequently due to the	
		limited experience in composting on a	
		large scale.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued)  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting		Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored over an initial period at the required facility for workers and for people who work nearby (Taylor, 1993).  Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design, operations and technology).  Proper supervision at community composting.	
Reuse Centres and Activities  Municipal reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Minor nuisance related effects on neighbouring features and businesses     Visual blight/image effect	· Mitigation not required	• Minor nuisance effect associated with image

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables     Construct new MRF or     improve/expand existing MRFs	Potential nuisance effects:     litter     visual	Mitigation will need to encompass proper sting and management     Siting: MRF's should be sited in areas	Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of
•	- traffic, truck queuing - noise	of compatible land use. The siting considerations for these types of	material, sensitivity and number of people near facility.
	- childrens safety	facilities will need to address; heavy	Possible displacement of
	- illegal dumping at centre	queuing, litter, and the possibility of	from the siting of a new facility.
	· Possible displacement of	excess storage (Lesnicki, 1993).  Management: The Facility will need to	
	community features and businesses	be managed in such a way as to	
	from the siting of a new facility.	control dust, litter, odour, rodents and	
		other pests, and excess materials.  Many of these effects could be	
		controlled by proper site design and	
		planning (berms, fences, etc.)	
		Some effects likely to be mitigated	
		over time due to greater familiarity with effects and mitigation (e.g.	
		improvements to siting design,	
		operations and technology).	
		Mitigation measures will need to be	
		developed on a system-wide basis for	
		a result of over-supply of some	
		material markets. While these	
		materials may not be kept at the	
		MRFs, storage will be required	
		elsewhere. Local residents should be	
		on a monitoring/management	
		commucos.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables     Depots located at transfer     stations/landfills	Potential nuisance related effects on nearby features and businesses - Litter - Visual - Traffic, truck queuing - Noise - Child safety - Property devaluation - Illegal dumping - Prossible displacement of community features and businesses from location of new facilities.	should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The sting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, litter, and possibility of excess storage.  Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)  Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these material markets. While these material markets. While these materials may not be kept at the depots, storage will be required elsewhere. Some effects likely to be miligated over time due to greater familiarity with effects and mitigation fee. improvements in sitne, design	Potential minor nuisance effects on community features and businesses at some facilities.  Possible displacement of community features and businesses from location of new facilities.
		operations and technology).	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	. No effect	· Mitigation not required	. No effect



# TABLE H2.5 GENERIC COMPONENTS NET EFFECTS

System: Residential Existing/Committed: Potential For Broad Social Impact Indicator: Potential for Lifestyle Changes MUNICIPALITY: GTA CRITERION

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling depot Drop-off depot for rural households	Potential positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.     Bins may attract nuisances if not picked up often.	Ensure convenience of system, weekly or bi-weekly.  Ensure the provision of information and educational services for new residents (Environies, 1990). This must be a continual effort to address turnover and increase in future densities.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride	· Mitigation not required	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting		-	
Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride     Enrourages positive local action     Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals)     Program may have substantial potential to increase waste diversion (MacLaren, 1990; Environics, 1990)	Address complaints (e.g., ill-fitting lids, insufficient volume) of users.  Provide kitchen containers, home delivery of composters, on-going subsidies (Environics, 1990; Maclaren, 1990; Metropolitian Works Committee, 1992).  On-going education for proper use.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  A number of minor lifestyle inconveniences associated with backyard, vermi and multi-family composters (odours, vermin, etc.).

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot WetDry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Orop-off depois for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping.     Consumers may become much more concerned about size and durability of appliances and furniture.     Residents may become more aware of HIIW and white goods management and change purchasing attitudes.	Improved service for white goods and large items.  Develop special waste days and special depots for multi-family building collection.  Make collection drop-off point convenient for all households and/or continue toxic taxi.  Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992).	Residents may become more aware of H1fW and white goods management and change purchasing attitudes.
Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  Community composting	. No effect	. Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  • Municipal reuse centre  • Private reuse centre  • Non-profit reuse centre  • Charitable reuse centres  • Food reuse organization  • Special goods exchange days	In some instances, has social welfare benefits  May contribute to acceptance of using repaired/second hand items rather than buying new products  Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc.	Provide incentives for establishing reuse centres and for holding "garage" sales.	In some instances, has social welfare benefits Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. Increased appeal and household economic benefits with future demographic changes may contribute to neighbourhood cohesiveness through communal garage sales, flea markets, bazaars, etc.
Public MRFs  Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs	. No esfect	· Mitigation not required	· No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	· No effect	· Mitigation not required	· No effect

Component Net Effects		- Potentially positive effect; encourages changes to conserver and waste diversion attitudes; nic emphasizing reduction and reuse, 0, as well as recycling, could lead to lifestyle change nd 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Mitigation/Enhancement		Expand and refine promotion/education programs to target non-participating groups and to allow for changes in demographic make-up of GTA (Environies, 1990; Morgan-Fraser, 1993).  Promotional/Educational programs should be based on successful programs identified in the 3Rs literature (e.g., Folz & Hazlett, 1990). For example, pamphlets and brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many School Boards have environmental education committees and the schools are increasingly being led by Principals & V.P.'s seager to spread an environmental mossage.
Potential Effects		Potentially encourages positive changes to conserver and waste diversion attitudes, emphasizing reduction and reuse, as well as recycling, could lead to lifestyle change  Could increase demand for packaging reduction (Environics, 1990).
Commonweal Comments	Residential Promotion and Education	Consumer education program     Consumer education program



## GENERIC COMPONENTS NET EFFECTS TABLE H2.6

MUNICIPALITY: GTA CRITERION

Y: GTA System: Residential Existing/Committed: Potential For Broad Social Impact Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.	has major implications for the conomy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the conomy radjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or
			elsewhere in North America.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste     Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	· No effect
Residential Household Composting			
Backyard composter distribution programs	<ul> <li>Direct employment gains, primarily in low skill jobs, are likely in the</li> </ul>		Direct employment gains, primarily in low skill jobs, are
<ul> <li>Large 3-bin composing units distributed to apartment and co-operative housing complexes</li> </ul>	manufacturing of composters, and in the management of the program.	economy and employees. While many persons in society will adapt	likely in the manufacturing of composters, and in the management of the program
· Community composting	short and long term changes in 'secondary and tertiary employment.	not. Mitigation is likely to occur as the economy readjusts to 3Rs	Indirect effects could include both short and long term changes in
	Magnitude, timing and direction of	management. There should be a	secondary and tertiary employment. Magnitude, timing
		business and labour t facilitate this	and direction of effects is
		re-training will be key components	
		adapt to new and evolving sectors	
		in the "green" economy.	

		50 %
Component Net Effects	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.
Mitigation/Enhancement	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Faucation and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	• Mitigation not required
Potential Effects	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Direct employment, primarily in low skill jobs, at the compositing facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.
Component Category/Components	Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depois for white goods  Drop-off depois for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HIIW  Special HIW drop-off days  Toxic Taxi service  Mobile HIIW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community Composting

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.	. Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.
Residential Promotion and Education  - 3Rs promotion and education program  - Consumer education program	Direct employment gatas are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in seceety will adapte easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Faucation and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.



# TABLE H2.7 GENERIC COMPONENTS NET EFFECTS

: GTA System : Residential Existing/Committed : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development MUNICIPALITY: GTA CRITERION: Potent

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Miligation not required	· No effect
Residential Recycling and Collection			
Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries.	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect reconomic effects could include both short and long-term changes in secondary and tertiary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the develorment of	· Mitigation not required	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes.
	marketable "green" products in the GTA (Although the industries could locate elsewhere in North America).		

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			,
· Special curbside collections of Christmas	· Minor direct economic benefits are likely in recycling industries, and in	The economic base is shifting from	Minor direct economic benefits are likely in recycling industries, and in
· Special and weekly curbside collections	collection. Indirect economic effects	orientation. Along with this trend is	collection. Indirect economic
of white goods	could include both short and long-	the movement towards a "green"	effects could include both short and
Drop-off depots for white goods     Seecial curboide collection for bulky	term changes in secondary and	economy. This transition is being made by various companies and	long-term changes in secondary and tertiary sectors. Magnitude, timing
items	a reduction in landfill fees, due to	sectors. However, the long-term	and direction of benefits is
· Permanent drop-off depot for HHW	reduced volumes. Magnitude, timing	competitiveness of the region may	uncertain.
· Special HHW drop-off days	and direction of effects is uncertain.	be dependent on the others making	
· Toxic Taxi service	Over the long-term, this initiative	the transition as well. Government,	
· Mobile HHW depots	could lead to the development of	business, and environmental	
	marketable "green" systems,	interests should work in partnership	
	technologies, and products in the	to facilitate this transition (eg.	
	GTA (Lesnicki and Mercer, 1993).	Roundtables on the Economy and	
		Environment), and grasp the	
		opportunities for marketing "green"	
		systems and technologies nationally	
		and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste     In-vessel composting of source separated organics     Community Composting	Minor direct economic benefits are likely at composing facilities, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA.	• Mitigation not required	Minor direct economic benefits are likely at composting facilities, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and teritary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors.      Magnitude, timing and direction of effects is uncertain. For example, decreased demand for new products.      Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.	·· Mitigation not required	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors.  Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs	Provides the infrastructural support for recycling materials by the private and public sector.  Provides a minor economic benefit in the sector.	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.
Residential Recycling Depots and Transfer Stations		-	-
Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Provides the infrastructural support for recycling materials by the private and public sector.  Provides a minor economic benefit in the sector.	Mitigation not required	Provides a minor short term economic benefit in the construction sector - Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	Minor direct economic benefits in printing, production and distribution.	· Mitigation not required	Minor direct economic benefits in printing, production and
	Indirect economic effects could include both short and long-term		distribution. Indirect economic effects could include both short and
	changes in secondary and tertiary		long-term changes in secondary and
	direction of effects is uncertain		tertiary sectors. Magnitude, timing
	Checaron of checas is direct dain.		and uncertain of cricers is uncertain.

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## TABLE H2.8 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

System : Residential Existing/Committed

: Potential For Broad Social Impact Indicator : Potential Operational Effects on Institutions, Commercial Enterprises and Industries CRITERION

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi- Self haul of garbage Regional recycling legislation	· No effect	. Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	All landlords may be required to provide space, facilities and staff time to accommodate recycling and may incur additional costs.	Province to consider additional costs for recycling in annual rent review application.	Potential increase in costs for tenants
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	. No cffeet-	. Mitigation not required	. No effect

Residential Household Components  Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartrment and co-operative housing complexes  Other Residential Waste Diversion (HHW, Toxic Taxi, Pitot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees spoods display goods  Special and weekly curbside collections of white goods by the service of depots for white goods  Permanent drop-off depots for HHW inconvenii disposing a growing which are durable.	ency (or ease) of white ocal may have an effect e of white goods s may want vendors to their old products). If the increasing sence to consumers in of old sylumiture, etc., they may ing for, and there may be market for, products smaller and more	Mitigation/Enhancement  Mitigation not required  Retail stores could develop buyback programs for large and bulky items. The consumer would then not be required to disperse items.	Omponent Net Effects.  No effect  In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods
Composting Facilities  Centralized windrow composting of leaf and yard  No effect waste In-vessel composting of source separated organics  Community composting		Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse recentration	· No effect	· Mitigation not required	· No effect
Special goods exchange days     Lin Appr.			
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs	· No effeet	Mitigation not required	· No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	. No effect	· Mitigation not required	. No effect
Residential Promotion and Education  3Rs promotion and education program  Consumer education program	· No cifect	. Mitigation not required	· No effect



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### GENERIC COMPONENTS NET EFFECTS TABLE H2.9

MUNICIPALITY: GTA

CRITERION

: Distribution of Social Costs and Benefits

System: Residential Existing/Committed Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Carbage Collection and Disposal Carbage Collection of residential garbage from single family dwellings Collection of residential garbage from settings and Collection Residential Recycling and Collection Residential Recycling and Collection Consumity recycling curbside collection Multi-family buildings of greater than 6 this expected by recycling and multi-family buildings of greater than 6 this at all multi-family buildings of greater than 6 this at all multi-family buildings of greater than 6 this expected by recycling depot for rural households Residential Leaf and Yard Waste Collection Community recycling depot for tural households Residential Leaf and yard waste Collection Computed for for tural households Residential Leaf and yard waste Collection Computed for for tural households Residential Leaf and yard waste Collection Computed for for teaf and yard waste Collection Computed for teaf and yard waste					
Som Sidents  Is Sof Sidents  I	onent Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
Samon on the state of the state	nge Collection and Disposal				
om sidents  Iss of . No effect . Mitigation not required . Mitigation not required . Mitigation not required Mitigation not required	rbside collection of residential bage from single family dwellings lection of residential garbage from titi-family units f haul of garbage from gional recycling legislation	· No effect	. Mitigation not required	. No effect	
residents lidings of lidings of sard  No effect  Wittigation not required	ential Recycling and Collection	. No offert	. Mitigation not required	· No effect	
yard · No effect · Mitigation not required · d waste	centrals and concerton or prace box and ingentials and ingential and profit depot for multi-family units ap-off depot for multi-family residents serviced by recycling centres yeeing at all multi-family buildings of ater than 6 units. Box recycling mandated gineered recycling depot or profit depot for rural households		0		
No effect     Mitigation not required     ste	ential Leaf and Yard Waste				
	rbside collection of Icaf and yard ste op-off depot for Icaf and yard waste	· No effect	· Mitigation not required	· No effect	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes	· No effect	Mitigation not required	No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Residents of some municipalities are provided with white goods and HHW collection, while others are not.	Mitigation not required	Minor effect in different level of service for white goods and HHW collection in some municipalities.
Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  Community Composting	Local residents and businesses may receive nuisance effects related to composting for all region residents.	Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/ compensation for site related impacts.  Address equity issue aspect of the siting process  Mitigation as "Potential Effects on Residents"	Negative distribution effect on some local communities, population groups and industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Potential positive effect for lower income groups as more low cost items available and adds potential market for their goods.	· Mitigation not required	Potential positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRFs	Potential negative distribution effects on some groups living near facility.	· Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility.</li> </ul>
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Potential negative distribution effects     on some groups living near facility.	· Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility.</li> </ul>
Residential Promotion and Education  3Rs promotion and education program  Consumer education program	· No effect	· Mitigation not required	. No effect



# TABLE H2.10 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA CRITERION: Distribut

: Distribution of Social Costs and Benefits

System : Residential Existing/Committed fits Indicator: Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units Self haul of garbage  Regional recycling legislation	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Engineered recycling depot  Drop-off depot for rural households	Minor difference in lifestyle effects in multi-family and low density development	· Mitigation not required	Minor lifestyle distributional effect between multi-family and low density residents.

Component Net Effects	fect	Fect	, fect
Сотроп	· No effect	. No effect	No effect
Mitigation/Enhancement	· Mitigation not required	. Mitigation not required	Mitigation not required
Potential Effects	Residents of local municipalities without curbside collection may be required to made a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.	· No effect	No effect
Component Category/ Components	Residential Leaf and Yard Waste Collection  • Curbside collection of leaf and yard waste • Drop-off depot for leaf and yard waste	Residential Household Composting Backyard composter distribution programs Large 3-bin composting units distributed to apartment and cooperative housing complexes	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet(Dry, White Goods Collection, White Goods Drop- Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	· No effect	· Mitigation not required	· Lifestyle and quality of life of residents affected near composting facilities, while lifestyle of other regional residents not affected.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	. No effect	Mitigation not required	. No effect
Public MRFs  • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRFs	No effect	, Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	. No effect	. Mitigation not required	. No effect
Residential Promotion and Education 3Rs promotion and education program Consumer education program	No effect	· Mitigation not required	· No effect



# TABLE H2.11 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: GTA System : Re: Distribution of Social Costs and Benefits Indicator: Pot

System: Residential Existing/Committed Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage  Regional recycling legislation	No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family unit Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Blue Box recycling depot Drop-off depot for rural households	These initiatives could help maintain the availability of resources for the use/enjoyment of future generations.	The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that an the current generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren.	Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste	Costly to start-up and establish but may have environmental benefits in	Evaluate the best approach to management of leaf and yard waste.	Very minor effect
· Drop-off depot for leaf and yard waste	the long run (may be better to have the yard waste composted at the	Address residential on- site mulching, chipping and composting.	
	household) (Lesnicki, 1993).	Could reduce the need for collection costs and costs for large, centralized	
-		facilities in the long term and may	
		better process, so less facility management/decommissioning cost.	
Residential Household Composting			
Backyard composter distribution     programs	Moderately costly to start-up and establish but environmentally	· Mitigation not required	Positive effect of passing on a healthier environment with
· Large 3-bin composting units	beneficial in the long run. Should	,	resources more available through
distributed to apartment and co- operative housing complexes	support change in behaviour to reduction and reuse.		support for change in behaviour to reduction and reuse.
operative nousing complexes	reduction and rease.		reduction and

Component Net Effects	Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal	· Minor positive future generational effect	Positive effect through the support for repaired, reused goods, and subsequent reduction of resource use.
Mitigation/Enhancement	• Mitigation not required	Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term.	Province could consider removing Provincial Sales Tax or other provincial taxes for the sale of used goods
Potential Effects	Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper, disposal.	Costly to start-up and establish but environmentally and possibly economically beneficial in the long run	Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future.
Component Category/Components	Other Residential Waste Diversion (IIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community composting	Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables     Construct new MRF or     improve/expand existing MRFs	Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long	· Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave
	run.  Current generation paying the cost for attering behaviour to a more sustainable society. Required support for recycling.		Tuture generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations	-		
Drop-off depot for dry recyclable     Depots located at transfer     stations/landfills	Costly to start-up but environmentally and possibly economically beneficial in the long run.  Current generation behaviour to position one for alterior behaviour to paying one for alterior behaviour to	Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources.
	a more sustainable society.		available.
Residential Promotion and Education			
3Rs promotion and education program     Consumer education program	<ul> <li>Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future</li> </ul>	Education material could emphasize the benefits to future generation of 3Rs actions today	<ul> <li>Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with</li> </ul>
	generations with cleaner environment and more resources available.		cleaner environment and more resources available.





### TABLE H3.1 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: Potential Local Community Impacts

System: Residential Direct Cost Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Direct cost system for garbage collection  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage  Regional recycling legislation	Effects uncertain with regional recycling legislation     Other components, no effect	· Mitigation not required	Effects uncertain with regional recycling legislation     Other components, no effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling depot Drop-off depot for rural households	No effect	· Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	. No effect	Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depois for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW	· No effect	Mitigation not required	. No effect
Special HHW drop-off days     Toxic Taxi service     Mobile HHW depois			-

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste	Potential nuisance effects:     odour	Existing facilities: Proper management of the material must be maintained in	Possible displacement of residents from the siting of a new facility.
In-vessel composting of source	- scavenging animals and birds	reducing odour and scavenging animal	· Potential odour and health
separated organics	- visual	problems. MOEE proposed	concerns and minor nuisance
Community composting	- illegal dumping	regulations (MOEE, 1993) do not	effects such as traffic, litter, birds,
	- traffic, truck queuing	appear to mitigate all of the	vermin and noise associated with
	- noise	documented effects.	centralized composting facilities.
	- child safety	Composting sites should be located in	May be reduced with public
	- property devaluation	areas of compatible land use. The	education and consultation and
	- stigma for neighbourhood	siting considerations for these types of	proper management.
	- health concerns	facilities should address: odour, heavy	· Potential for odour and vermin
	(Morgan-Frazer, 1993; Lesnicki,	truck traffic, truck queuing nuisance	problems at community
	1993; Scott, 1993; Dale, 1993;	and litter. State-of-the-art odour	composting facilities.
	Cuthill and Taylor, 1993).	control features should be design	
		requirements. Local residents should	
	· Potential odour effects have been	be on the management/monitoring	
	significant enough to have leaf and	committees (Lesnicki, 1993).	
	yard waste composting facilities	As management of the facility should	
	closed (RIS, 1993; J. Scott, 1993).	comply with all operational	
	· Possible displacement of residents	requirements, the requirements should	
	from the siting of a new facility.	be reviewed frequently due to the	
	· Potential for odour and vermin	limited experience in composting on a	
	problems at community composting	large scale.	
	facilities.	· Research does not indicate an	
		association between occupational	
		health problems and composting	
		because dose-response issues are not	
		resolved. (Maritato et al., 1992).	
		However, health effects could be	
		monitored for workers and the	
		neighbouring residents over an initial	
		period at the required facility (Taylor,	
		1993).	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Compouent Net Effects
Composting Facilities (continued)  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to sting design, operations and technology).	
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charliable reuse centres  Food reuse organization  Special goods exchange days	Traffic concerns Visual effect of large bins in plazas Centres may not be desirable in all areas due to stigma	· Locate Reuse Centres in areas of compatible land use	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry recyclables	· Potential nuisance effects:	· Mitigation will need to encompass	· Possible displacement of residents
· Construct new MRF or	- litter	proper siting and management.	from the siting of a new facility.
improve/expand existing MRFs	- visual	· Siting: MRF's should be sited in areas	· Minor nuisance effects such as
	- traffic, truck queuing	of compatible land use. The siting	traffic, litter and noise. Effects
	- noise	considerations for these types of	dependent on operation, type of
	childrens safety	facilities will need to address: heavy	material, sensitivity and number of
	- property devaluation	truck traffic, noise, visibility, truck	people near the facility.
	- illegal dumping at centre	queuing, litter, and the possibility of	
		excess storage (Lesnicki, 1993).	
	· Possible displacement of residents	Mitigation measures will need to be	
	from the siting of a new facility.	developed on a system-wide basis for	
		the management of excess materials as	
		a result of over-supply of some	
		material markets. While these	
		materials may not be kept at the	
		MRFs, storage will be required	
		elsewhere. Local residents should be	
		on a monitoring/ management	
		committees. Some effects likely to be	
		mitigated over time due to greater	
		familiarity with effects and mitigation	
		(e.g. improvements to siting design,	
		operations and technology).	
		Public consultation program	
		established with local residents to	
		ensure all concerns and effects are	
		addressed.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations		-	
Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Potential nuisance effects:  - litter  - visual  - trafic, truck queuing  - noise  - child safety  - property devaluation  - illegal dumping at centre  - Possible displacement from siting of new facilities.	Mitigation will need to encompass proper stiing and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The stiing considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.  Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)  Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the depots/fransfer stations, storage will be remured elevarhere.	Potential minor nuisance effects at some facilities.  Possible displacement from siting of new facilities.

component category/components 1 or	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· Promotion/education program on direct	No effect	· Mitigation not required	· No effect
cost system			
Promotion/education program on			
source reduction/pre-cycling, reuse and			
recycling			
3Rs promotion and education program			
Consumer education program			



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### TABLE H3.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY : GTA
CRITERION : Potential Local Com

CRITERION : Potential Local Community Impacts

System : Residential Direct Cost Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
Garbage Collection and Disposal  Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	. No effect	· Mitigation not required	. No esfect	
Residential Recycling and Collection Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling depot Drop-off depot for rural households	Elderly/physically challenged may have difficult time setting out recyclables and compostable material for pick-up and using drop-off facilities.	Provide maximum convenience possible.	Inconveniences for elderly and physically challenged.	

leaf and yard waste from bosting composting in of backyard single family mposters to multi- gunits distributed pperative housing Diversion (HHW, y, White Goods Drop-Off, etc.)  Little goods tion for bulky find goods single collections with drivers and handlers of HHW. The goods tion for bulky find goods fin	Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
No effect     Mitigation not required     My,  W,  Possible occupational safety concerns with drivers and handlers of HHW.  HHW education for drivers and handlers of HHW.	Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	·· No effect	· Mitigation not required	. No effect
Possible occupational safety concerns     with drivers and handlers of HHW. handlers.	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households	· No effect	· Mitigation not required	. No effect
Possible occupational safety concerns     with drivers and handlers of HHW.     handlers.	Promotion of vermi-composters to multi- family units Large 3-bin composting units distributed to apartment and co-operative housing complexes		•	
· Mobile HHW depots	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depois for white goods  Drop-off depois for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off depot for HHW  Special HHW depots  Toxic Taxi service  Mobile HHW depots	Possible occupational safety concerns with drivers and handlers of HHW.	HHW education for drivers and handlers.	Minor possibilities of occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf	· Although the research (Curtis et al.,	Since the destruction of pathogens	· Employees at compost facilities may
and yard waste Th-vessel composting of source separated organics	1991) indicates that properly managed composting produces a safe product, there are:	in compost is directly proportional to the temperature increases achieved in the piles (Curis et al.,	be exposed to health and safety hazards. Should be minimized by education. Could be instigated by
· Community Compositing	Possible health effects on allergy sufferers, people with respiratory	procedures should be instituted to maximize this destruction.	proper design and control.  Potential for health effects (odours) on allergy sufferers, people with
	allments, people with immuno- deficiencies.	Prudence dictates that employees     should practise proper hygiene	immuno deficiencies, etc. Magnitude of effect may be
	Taylor, 1993).	and wear protective clothing.  Health effects monitoring for	minimized by proper sting considerations of new facilities and
		employees and nigh-risk residents should be an operational condition.	proper management.
Reuse Centres and Activities			
Municipal reuse centre Private reuse centre	· Food contamination issue and liability concerns of donors (Wrigley,	Train food distribution groups in potential contamination/spoilage.	. No effect
Non-profit reuse centre     Charitable reuse centres     Food reuse organization	1993).  Positive effect for low-income and disabled prouns	Province to consider "Good Samaritan" Legislation to absolve donor of responsibility	
Special goods exchange days	Possible transfer of pests in reuse centers, exchange days, etc.	Cleaning and furnigation of materials.	
Public MRFs			
Processing centre for dry recyclables Construct new MRF or expand/improve existing MRFs	Possible employee health/safety concerns	<ul> <li>Educate/train employees on health and safety hazards and precautions.</li> </ul>	Possible employee health/safety concerns should be minimized by mitigation.

Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills Residential Promotion and Education Promotion/education program on direct reds system Promotion/education program on source reduction/pre-eycling. revea and recycling			
ransfer  Possible employee health/safety concerns  an direct No effect source eveling	Potential Effects	Mitigation/Enhancement	Component Net Effects
Possible employee health/safety concerns  and direct     No effect     source source	and Transfer	-	
nd Education program on direct program on source reuse and recycling	· Possible employee health/safety concerns	Educate/train employees on health and safety hazards and precautions.	Possible employee health/safety concerns should be minimized by mitigation.
	. No effect	. Mitigation not required	· No effect

### GENERIC COMPONENTS NET EFFECTS TABLE H3.3

MUNICIPALITY: GTA CRITERION

: Potential Local Community Impacts

System: Residential Direct Cost Indicator: Potential Effects on Community

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Direct Cost system for garbage collection     Curbside collection of residential garbage from single family dwellings     Collection of residential garbage from multi-family units     Self haul of garbage	Potential for illegal dumping/burning     as resistance to direct cost.	<ul> <li>Mitigation and enhancement by variable rate schemes, enforcement, expanded 3Rs, etc.</li> </ul>	Potential for illegal dumping/burning as resistance to direct cost. Mitigation and enhancement by variable rate schemes, enforcement, expanded 3Rs, etc. should reduce effects.
Regional recycling legislation			
Residential Recycling and Collection			
Curbside collection of Blue Box materials Expanding curbside collection	Possible increase in community pride from participation.	· Mitigation not required	<ul> <li>Possible increase in community pride from participation.</li> </ul>
Collection of bins of recyclables from multi-family units			
Drop-off depot for multi-family residents not serviced by recycling			
Recycling at all multi-family buildings			
Blue Box recycling mandated			
Engineered recycling depot     Drop-off depot for rural households			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	• Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	. No effect	Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Chrismas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots.	Develop incentives for people to donate useful large items, repairfreuse items or properly dispose of them.  Assistance in organization of community garage sales, flea markets etc.  Enforcement for illegal dumping.	Minor negative community stigma cffect on community image from illegal dumping.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  Community composting	Possible stigma effect in some communities.	State-of-the-art odour control     should be an operational condition	Possible stigma effect in some communities
Reuse Centres and Activities  Municipal reuse centre  Non-profit reuse centre  Charitable reuse centre  Charitable reuse centre  Food reuse organization  Special goods exchange days	· Possible stigma effect in some communities.	· Location of the reuse centres in suitable land use area	. No effect
Public MRFs  Processing centre for dry recyclables  Construct new or improve/expand existing MRF	· Possible stigma effect in some communities.	· Mitigation not required	Possible stigma effect and disruption in some communities. Magnitude of effect dependant on site location and management of the facility.
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	. No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education	-		
ucation	program on direct · Possible increase in community pride	· Mitigation not required	Possible increase in community
Promotion/education program on			pnde
source reduction/pre-cycling, reuse and			
· 3Rs promotion and education program			
· Consumer education program			

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## GENERIC COMPONENTS NET EFFECTS TABLE H3.4

MUNICIPALITY: GTA

: Potential Local Community Impacts CRITERION

System : Residential Direct Cost Indicator: Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Direct Cost system for garbage collection  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage  Regional recycling legislation	. No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Engineered recycling depot  Drop-off depot for rural households	Possible nuisance effects on community features and businesses from traffic and hauling.	Planning and co-ordination of haulage system to minimally disrupt local community features and businesses.	Possible very minor nuisance effects on community features and businesses from traffic and hauling.
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multifamily units  Large 3-bin composting units distributed to apartment and co-operative housing complexes	· No effect	· Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees. Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities	111		
Centralized windrow composting of leaf and vard waste	· Potential nuisance effects:	· Existing facilities: Proper management of the material must	Potential odour and health concerns and minor puisance
· In-vessel composting of source separated	- scavenging animals and birds	be maintained in reducing odour	effects such as traffic, litter, birds,
organics	- visual	and scavenging animal problems.	vermin and noise associated with
· Community composting	- illegal dumping	MOEE proposed regulations	centralized composting facilities.
	- traffic, truck queuing	(MUEE, 1993). Do not appear to	May be reduced with public
	- child safety	effects.	proper management.
-	- property devaluation	· Composting sites should be	· Possible displacement of
	- stigma	located in areas of compatible	community features and businesses
	- health concerns	land use. The siting	from siting of new facility.
	(Morgan-Frazer, 1993) (Lesnicki,	considerations for these types of	
	1993) (Scott, 1993) (Dale, 1993)	facilities should address: odour,	
	(Cuthill and Taylor, 1993).	heavy truck traffic, truck queuing,	
	· Potential odour effects have been	State-of-the-art odour control	
	significant enough to have leaf and	features should be design	
	yard waste composting facilities	requirements. Local residents	
	closed (R1S, 1993; J. Scott, 1993).	should be on the	
	· Possible displacement of businesses	management/monitoring	
	and community features from siting of new facility.	committees (Lesnicki, 1993).	
Reuse Centres and Activities			
· Municipal reuse centre	· Minor nuisance related effects on	· Mitigation not required	. No effect
· Private reuse centre	neighbouring features and		
· Non-profit reuse centre	businesses		
Charitable reuse centres	· Visual blight/image effect		
Food reuse organization			
· special goods exchange days			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRFs	Potential nuisance effects:  - litter  - visual  - traffic, truck queuing  - noise  - child safety  - property devaluation  - illegal. dumping  - stigma  - Possible displacement of community features and businesses from siting new facilities.	Mitigation will need to encompass proper siting and management.  Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: beavy truck traffic, noise, visibility, truck queuing, litter, and the possibility of excess storage (Lesnicki, 1993).  Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)  Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere.  Local residents should be on a monitoring/management	Possible displacement of community features and businesses from siting of a new facility.  Minor nuisance effects such as traffic, litter and noise. Effects dependent on operation, type of material, sensitivity and number of people near the facility.
		committee	

Component Category/Components Pol Residential Recycling Depots and Transfer Stations			
Residential Recycling Depots and Transfer Stations	Potential Effects	Mitigation/Enhancement	Component Net Effects
Depots located at transfer stations/landfills	Nuisance related effects on nearby features and businesses:  - litter  - visual  - traffic, truck queuing  - noiss  - property devaluation  - lilegal dumping  Possible displacement of community features and businesses from siting of new facilities.	Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than public MRI's. The siting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, litter, and possibility of excess storage. Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of owersunoly of some material.	Minor nuisance effects on community features and businesses at some facilities  Possible displacement of community features and businesses from location of new facilities
		markets. While these materials may not be kept at the MRFs, storage will be required elsewhere.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program on direct	· No effect	· Mitigation not required	· No effect
cost system			
Promotion/education program on source			
reduction/pre-cycling, reuse and recycling			
3Rs promotion and education program			
Consumer education program			

## GENERIC COMPONENTS NET EFFECTS TABLE H3.5

MUNICIPALITY: GTA
CRITERION: Potential For Broad Social Impact

System: Residential Direct Cost Indicator: Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	Could potentially support 3Rs by encouraging residents to source separate to reduce the amount of garbage (Environics, 1990). Could potentially lead to greater "contamination" of recyclables as residents maximize use of 3Rs.	Complement direct cost with timely promotion/education program and public consultation program.	Could support 3Rs by encouraging residents to source separate to reduce the amount of garbage. Could lead to greater "contamination" of recyclables as residents maximize use of 3Rs. Complement direct cost with timely promotion/education program and public consultation program.
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling. Community recycling centres Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling depot Drop-off depot for rural households	Positive social and lifestyle effect, people willing to do and leam more, source of personal and community pride (Spaccarelli, Zolik, and Jason, 1989-90).  Bins may attract nuisances if not picked up often.	Ensure convenient location of dropolf point for apartment dwellers.     Assistance in the development of 3Rs apartment committees, "Welcome Wagons", etc.     Ensure the provision of information and educational services for new residents (Environics, 1990). This must be a continual effort to address turnover and increase in future densities.     Ensure regular pick-up.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.

		t,	ช์
		Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. Variety of lifestyle inconveniences.
	Effects	and life to do a of perso de.	and life to do a for do.
	nt Net	Positive social and lifestyle eff people willing to do and learn more, source of personal and community pride.	Positive social and lifestyle ef. people willing to do and leart more, source of personal and community pride. Variety of lifestyle inconveniences.
	Component Net Effects	Positive people more, commu	Positive people
-		•	D D
			Il-fitting f users. , home segoing it in the prosting admired. prosting quired.
	ient	uired	s (e.g., i lume) o lume) o lume) o lume) o lume) o lume) o lume; o lum
	Mitigation/Enhancement	Mitigation not required	Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Environics, 1990; Maclaren, 1990; Metropolitan Works Committee, 1992).  Target apartments with action Promotion/Education programs and consultation program to maximize participation - modify composting program/components as required. Ongoing education for proper use.
	ation/E	tigation	dress cc sy insuffice sylvery of soldies ( sclaren, munitec reget aps reget
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		Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.	Positive social and lifestyle effect, source of personal and community pride.  Encourages positive local action. Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, savenging animals).  Program may have substantial potential to increase waste diversion (MacLaren, 1990; Environics, 1990). Promotion of vermicomposting in apartments should increase awareness of role of apartment residents in 3Rs and should lead to greater support for and involvement in 3Rs.  Potential odour and vermin problems at community composting facility.  Residents of apartment buildings may experience an increase in insect and rodents, odour and health concerns.
	Effects	e social willing of pers	e social of pers rages persistent of pers rages persistent of pers sufficient odours, is) in may int to in aton in aton in aton in aton in aton in in an int of in aton in aton in aton in in aton in
	Potential Effects	Positiv people source pride.	Positive s people wis source of pride. Encouragi Inconvenimority of lids, insufasce, od animals). Program potential (MacLare Promotion apartmen awareness residents greater st in 3Rs. Potential problems facility. Residents
	-	e e	g g
	ts	sidential Leaf and Yard Waste Collecti Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	sidential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multi- family units  Large 3-bin composting units distributed to apartment and co-operative housing complexes
	mponen	rd Wast leaf and	Composting ution of back of single fami composters tt ing units dist operative ho
	gory/Co	sidential Leaf and Yard Waste Coll. Curbside collection of leaf and yard waste Drop-off depot for leaf and yard wa	sidential Household Composting Door-to-door distribution of backya composters to 80% of single family households Fromotion of vermi-composters to family units Large 3-bin composting units distril to apartment and co-operative hou complexes
	ot Cate	al Leaf de colle	al Hous o-door o sters to coldos tion of vinuits of the cold of th
	Component Category/Components	Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Residential Household  Door-to-door distribute to 80% of the composters to 80% of the family units.  Large 3-bin compost to apartment and co complexes
	L	2	<b>A</b>

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Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees     Special and weekly curbside collections of white goods     Drop-did depots for white goods     Special curbside collection for bulky items     Permanent drop-off depot for HHW     Special HHW drop-off days     Toxic Taxi service     Mobile HHW dcpots	White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping.  Consumers may become much more concerned about size and durability of appliances and furniture.  Residents may become more aware of HITW and white goods management and change purchasing attitudes.	Improved service for white goods and large items  Develop special waste days and special depots for multi-family building collection  Make collection drop-off point convenient for all households and/or continue toxic taxi  Develop promotional/educational materials to emphasize alternatives to 1HtW for pest control, lawn & garden, cleaning agents, and paint and solvenis. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992).	Residents may become more aware of HHW and white goods management and change purchasing attitudes.
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	· No effect	· Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	In some instances, has social welfare benefits.  May contribute to acceptance of using repaired/second hand items rather than buying new products.  Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc.	Provide incentives for establishing reuse centres and for holding "garage" sales.	Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products. In some instances, has social welfare benefits.  Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cobesiveness: through communal garage sales, flea markets, bazzaars, etc.
Public MRFs  • Processing centre for dry recyclables  • Construct new or improve/expand existing MRFs	. No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	. No effect	· Mitigation not required	. No effect

Communit Category/Communents	Potential Effects	Mitigation/Enhancement	Component Net Effects
		C	
Residential Promotion and Education			
Promotion/education program on Direct	· Potentially encourages positive	· Expand and refine	· Potentially positive effect;
Cost system	changes to conserver and waste	promotion/education programs to	encourages positive changes to
Promotion/education program on source	diversion attitudes; emphasizing	target non-participating groups and	conserver and waste diversion
reduction/pre-cycling, reuse and recycling	reduction and reuse, as well as	to allow for changes in demographic	attitudes; emphasizing reduction
3Rs promotion and education program	recycling, could lead to lifestyle	make-up of GTA (Environics, 1990)	and reuse, as well as recycling,
Consumer education program	change.	(Morgan-Fraser, 1993).	could lead to lifestyle change.
	· Could increase demand for	· Promotional/Educational programs	
	packaging reduction (Environics,	should be based on successful	
	1990).	programs (e.g., Folz & Hazlett,	
		1990). For example, pamphlets and	
		brochures (in utility bills, etc.) and	
		community information meetings.	
		· The role of the schools could be	
		important, particularly for new	
		Canadians whose children are	
		receiving the only English instruction	
		in the family. Many School Boards	
		have environmental education	
		committees and the schools are	
		increasingly being led by Principals	
٠		& V.P.'s eager to spread an	
		environmental message.	



: Potential For Broad Social Impact MUNICIPALITY: GTA CRITERION

System: Residential Direct Cost Indicator: Potential Effects on Employment

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal	-		
Direct Cost system for garbage collection     Curbside collection of residential garbage from single family dwellings     Collection of residential garbage from multi-family units     Self haul of garbage     Regional recycling legislation	· No effect	Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Engineered recycling depot  Drop-off depot for rural households	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effect is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors, in the "green" economy.	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effect is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.

Commonant Cotenory/Commonents	Potential Effects	Mitication/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard     waste     Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	· No effect
Residential Household Composting			. *
Door-to-door distribution of backyard composters to 80% of single family	<ul> <li>Direct employment gains, primarily in low skill jobs, are likely in the</li> </ul>	A transition to conserver attitudes     has major implications for the	Direct employment gains, primarily in low skill jobs, are
households  Promotion of vermi-composters to multi-	manufacturing of composters, and in the management of the program.	economy and employees. While many persons in society will adapt	likely in the manufacturing of composters, and in the
family units  Targe 3-bin compositing units distributed	Indirect effects could include both	casily to these changes, many will not. Mitigation is likely to occur as	management of the program. Indirect effects could include both
to apartment and co-operative housing	secondary and tertiary employment. Magnitude timing and direction of	the economy readjusts to 3Rs	short and long term changes in secondary and tertiary
Savardino.	effects is uncertain.	partnership between government, business and labour to facilitate this	employment. Magnitude timing and direction of effects is
		change in attitude. Education and re-training will be key components	uncertain.
		to help the working population	
		in the "green" economy.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees     Special and weekly curbside collections of white goods     Drop-off depois for white goods     Special curbside collection for bulky items     Permanent drop-off depot for HHW     Special HHW drop-off days     Toxic Taxi service     Mobile HHW depois	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community composting	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.	Mitigation not required	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	· Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Public MRFs			
Processing centre for dry recyclables     Construct new or improve/expand     existing MRFs	Direct employment is likely to be maintained at the MRF's and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.	Mitigation not required	Direct employment is likely to be maintained at the MRFs and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer     stations/landfills	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment.  Minor short-term increase in construction sector employment.	· Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment.  Minor short-term increase in construction sector employment.
Residential Promotion and Education			
Promotion/education program on direct cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling. 3Rs promotion and education program Consumer education program	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3ks management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.



# TABLE H3.7 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION : Potential For Broad Social Impact

System: Residential Direct Cost

Indicator: Potential Effects on Economic Development

Ŭ	Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Ü	Garbage Collection and Disposal			
	Direct Cost system for garbage	· No effect	· Mitigation not required	. No effect
	Curbside collection of residential			
	garbage from single family dwellings Collection of residential garbage from			
	multi-family units			
٠	Self haul of garbage			
٠	<ul> <li>Regional recycling legislation</li> </ul>			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection			
· Curbside collection of Blue Box	· Direct economic benefits are likely	The economic base is shifting from	· Direct economic benefits are likely
· Expanding curbside collection	recycling muchties, and mercycling collection. Indirect	orientation. Along with this trend is	recycling industries, and in recycling collection. Indirect
Collection of bins of recyclables from multi-family units	economic effects could include both short and long-term changes in	the movement towards a "green" economy. This transition is being	economic effects could include both short and long-term changes in
· Drop-off depot for multi-family	secondary and tertiary sectors.	made by various companies and	secondary and tertiary sectors.
residents not serviced by recycling  Community recycling centres	Cost savings from a reduction in landfill fees due to reduced.	sectors. However, the long-term competitiveness of the region may be	Over the long-term, this initiative could lead to the development of
· Recycling at all multi-family buildings of	volumes. Magnitude, timing and	dependent on the others making the	marketable "green" systems,
greater than 6 units  Rue Box recycling mandated	direction is uncertain. Over the	transition as well. Government,	technologies, and products in the
· Engineered recycling depot	to the development of marketable	should work in partnership to	may raise benefits.
Drop-off depot for rural households	"green" systems, technologies, and	facilitate this transition (eg.	
	products in the GTA (Mercer,	Roundtables on the Economy and	
	Recycling in all multi-family	opportunities for marketing "green"	
	buildings will increase the supply of	systems and technologies nationally	
	recyclable material and should provide better support for recycling	and internationally.	
	industries.	٠	
Residential Leaf and Yard Waste Collection			-
Curbside collection of leaf and yard	· No effect	· Mitigation not required	. No effect
Drop-off depot for leaf and yard waste			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family households     Promotion of vermi-composters to multi-family units     Large 3-bin composting units distributed to apartment and co-operative housing complexes	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America).	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (e.g. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and techologies nationally	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes.  Magnitude, itiming and direction of effects are uncertain.
		and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees     Special and weekly curbside collections of white goods     Drop-off depois for white goods     Special curbside collection for bulky items     Permanent drop-off depot for HHW     Special HHW drop-off days     Toxic Taxi service     Mobile HHW depots	ikely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes.  Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally	Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and effects are uncertain.
		and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste     In-vessel composting of source . separated organics     Community composting	Minor direct economic benefits are likely at composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).	• Mitigation not required	Minor direct economic benefits are likely at composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centre Food reuse organization Special goods exchange days	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and effects are uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.	. Mitigation not required	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertairy sectors. Magnitude, timing and effects are uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs		-	
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF	for recycling materials by the private and public sector.	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is	Indirect effect on economic development by providing the infrastructure required for recycling.
	in the construction sector	the movement towards a green economy. This transition is being made by various companies and sectors. However, the long-term	oy the private and public sectors.  Provides a minor economic benefit in the construction sector.
		competitiveness of the region may be dependent on the others making the transition as well. Government, hustness, and environmental interests.	
		should work in partnership to facilitate this transition (eg. Roundtables on the Economy and	
		Environment), and grasp the opportunities for marketing "green"	
		systems and technologies nationally and internationally.	
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Provides the infrastructural support for recycling materials by the private and public sector	· Mitigation not required	Provides a minor short term economic benefit in the construction sector
	Provides a minor economic benefit in the sector ,		Indirect effect on economic development by providing the infrastructure required for recycling

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Component Category/Components	Fotential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program on direct     Minor direct economic benefits in	· Minor direct economic benefits in	· Mitigation not required	. Minor direct economic benefits in
cost system	printing, production and		printing, production and
· Promotion/education program on source	distribution. Indirect economic		distribution. Indirect economic
reduction/pre-cycling, reuse and	effects could include both short and		effects could include both short and
recycling	long-term changes in secondary and		long-term changes in secondary and
3Rs promotion and education program	tertiary sectors. Magnitude, timing		tertiary sectors. Magnitude, timing
· Consumer education program	and direction of effects is uncertain.		and direction of effects is uncertain.



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## GENERIC COMPONENTS NET EFFECTS TABLE H3.8

MUNICIPALITY: GTA
CRITERION: Potential For Broad Social Impact

System : Residential Direct Cost

Industries
and
Enterprises
Commercial
Institutions,
O
Effects
Operational
Potential
Indicator

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal	-		
Direct Cost system for garbage collection     Curbside collection of residential garbage from single family dwellings     Collection of residential garbage from multi-family units     Self haul of garbage     Regional recycling legislation	<ul> <li>Potential increase in cost for landlords of apartment buildings that have municipal service.</li> </ul>	. Landlord to work with residents on 3Rs.	Potential increase in costs for landlords of apartment buildings that have municipal service.
Residential Recycling and Collection			
Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Direct cost system may add costs to landlords.	Province to consider the additional costs for recycling in annual rent review application.	Potential small increase in costs for tenants.
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	· No effect

Component Net Effects	<ul> <li>Potential increase in costs for tenants and landlords</li> </ul>	In the long term, institutions and commercial enterprises may develop programs to "buy back" used white goods.	. No effect
Mitigation/Enhancement	<ul> <li>Landlords to include increase in costs associated with composting services in annual rent review applications.</li> </ul>	Retail stores could develop buyback programs for large and bulky items. The consumer would then not be required to disperse items.	· Mitigation not required
Potential Effects	Landlords may be required to provide space and equipment for composters and may experience increased costs associated with insect and rodent control, staff etc.	The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products).  Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable.	· No effect
Component Category/Components	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multifamily units  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile, HHW depots	Composting Facilities  Contralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	. No effect	· Mitigation not required	· No effect
Public MRFs  Processing centre for dry recyclables  Construct new or improve/expand existing MRFs	. No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations Drop-off depot for dry recyclable Depots located at transfer stations/landfills	. No effect	· Mitigation not required	. No effect
Residential Promotion and Education Promotion/cducation program on direct	· No effect	· Mitigation not required	. No effect
Promotion/education program on source reduction/pre-cycling, reuse and recycling  3			



## GENERIC COMPONENTS NET EFFECTS TABLE H3.9

MUNICIPALITY: GTA

CRITERION : Distribution of Social Costs and Benefits

System: Residential Direct Cost Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Direct Cost system for garbage collection     Curbside collection of residential garbage	There could be a negative distribution effect as costs for	Advise residents of the reasons for collection once a weak (cost	· There could be a negative distribution effect as costs for
from single family dwellings Collection of residential garbage from	garbage collection could be proportionally higher for larger	savings).  Potentially could consider a special	garbage collection could be proportionally higher for larger
multi-tamiy units  Self haul of garbage Regional recycling legislation	families and not attoridable for lower-income households.	urect cost system for larger and row- income families.	lower-income households.
Residential Recycling and Collection			
Curbside collection of Blue Box materials     Expanding curbside collection     Collection of pins of recorables from	. No effect	· Mitigation not required	· No effect
multi-family units  Drop-off depot for multi-family residents			
not serviced by recycling Community recycling centres			
Recycling at all multi-family buildings of greater than 6 units			
Blue Box recycling mandated			
Drop-off depot for rural households			
Residential Leaf and Yard Waste Collection			
· Curbside collection of leaf and yard waste · Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	No effect

		<u> </u>	
Component Net Effects	No effect	Minor effect in different level of service for white goods and HHW collection in some municipalities.	Negative distribution effect on some local communities, population groups and industries.
Mitigation/Enhancement	Mitigation no required	Mitigation not required	Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/ compensation for site related impacts.  Address equity issue aspect of the siting process
Potential Effects	No effect	Residents of some municipalities are provided with white goods and HHW collection, while others are not.	Local residents and businesses may receive nuisance effects related to composting for all region residents.
Component Category/Components	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multifamily units  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Special thrW drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics

	Potential Effects	Mitigation/Enhancement	Commonent Net Effects
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre     Non-profit reuse centre     Charitable reuse centres     Food reuse organization	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.	· Mitigation not required	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRFs			
Processing centre for dry recyclables     Construct new or improve/expand existing     MRF	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>	· Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>	· Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>
Residential Promotion and Education  Promotion/education program on direct cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling 318 c promotion and education program	· No effect	· Mitigation not required	· No effect
· Consumer education program			



# TABLE H3.10 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA CRITERION : Distrib

: Distribution of Social Costs and Benefits Inc

System: Residential Direct Cost Indicator: Distribution of Lifestyle Effects

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Direct Cost system for garbage collection Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Minor difference in lifestyle effects in multi-family and low density development.	· Mitigation not required	Minor lifestyle distributional effect between multi-family and low density residents.

Component Net Effects	No effect	· Equitable distribution of service	. No effect
Mitigation/Enhancement	Mitigation not required	· Mitigation not required	· Mitigation not required
Potential Effects	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.	· Equitable distribution of service	· No effect
Component Category/ Components	Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multifamily units  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW  Special HHW drop-off days Toxic Taxi service Mobile HHW depots

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	. No effect	· Mitigation not required	· No effect
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charlable reuse centres  Food reuse organization  Special goods exchange days	. No effect	· Mitigation not required	. No effect
Public MRFs  • Processing centre for dry recyclables  • Construct new MRF or improve/expand existing MRFs	. No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	. No cffect	Mitigation not required	. No effect

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· Promotion/education program on direct	· No effect	· Mitigation not required	· No effect
cost system			
Promotion/education program on source			
reduction/pre-cycling, reuse and recycling			
3Rs promotion and education program	-		
· Consumer education program			

### GENERIC COMPONENTS NET EFFECTS TABLE H3.11

MUNICIPALITY: GTA

: Distribution of Social Costs and Benefits CRITERION

System: Residential Direct Cost Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Direct Cost system for garbage collection  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage  Regional recycling legislation	. No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Positive effect through more sustainable use of resources and conservation of the environment.	Continue to promote and educate on 3Rs (Hay, ND; Lesnick, 1993; Morgan-Frascr, 1993; Watson, 1993).  The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that the current generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren.	Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste     Drop-off depot for leaf and yard waste	Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household; mulch leaves and grass branches (Lesnicki, 1993).	Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may poss on the future generation a better process, so less facility management and decommissioning cost.	No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multifamily units  Large 3-bin composting units distributed to apartment and co-operative housing complexes	Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse.	Promotion and education would increase future participation rates (Environics, 1990).	Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.

Component Net Effects	Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse, and proper disposal.	Minor positive future generational effect.	
		Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term.	
Mitigation/Enhancement	Mitigation not required  ure		
Potential Effects	Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse, and proper disposal.	Costly to start-up and establish but environmentally and possibly economically beneficial in the long run.	
Component Category/Components	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.) Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Reuse Centres and Activities

Commons Cotogory/Commonsts	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables     Construct new or improve/expand existing     MRFs	Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling.	· Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	Costly to start-up but environmentally and possibly economically beneficial in the long run.     Current generation behaviour paying cost for altering behaviour a more sustainable society.	· Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education	*		
Promotion/education program on Direct Cost system     Promotion/education program on source reduction/pre-cycling, reuse and recycling     3Rs promotion and education program     Consumer education program	Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available.	Education material could emphasize the benefits to future generation of 3Rs actions today.	Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.





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# TABLE H4.1 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION : Potential Local Community Impacts

System: Residential Expanded Blue Box Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitlgatlon/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	Effects uncertain with regional recycling legislation     Other components, no effect	· Mitigation not required	. No effect
Residential Recycling and Collection			
Curbside collection of Expanded Blue     Box materials     Expanding curbside collection     Collection of hirs of recoclables from	· No effect	· Mitigation not required	. No effect
multi-family units  Drop-off depot for multi-family residents not serviced by recycling			
Drop-off depot for rural households Community recycling centres Engineered recycling depot			
<ul> <li>Recycling at all multi-family buildings of greater than 6 units</li> <li>Blue Box recycling mandated</li> </ul>			
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard     waste     Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	No effect	• Mitigation not required	· No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots	No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
· Centralized windrow composting of leaf · Potential nuisance effects:	· Potential nuisance effects:	· Existing facilities: Proper	· Possible displacement of residents
and yard waste	- odour	management of the material must be	for the siting of a new facility.
· In-vessel composting of source	- scavenging animals and birds	maintained in reducing odour and	· Potential odour and health
separated organics	- visual	scavenging animal problems. MOEE	concerns and minor nuisance
· Community composting	- illegal dumping	proposed regulations (MOEE, 1993)	effects such as traffic, litter, birds,
	- traffic, truck queuing	do not appear to mitigate all of the	vermin and noise associated with
	- noise	documented effects.	centralized composting facilities.
	- child safety	· Composting sites should be located	May be reduced with public
	- property devaluation	in areas of compatible land use. The	education and consultation and
	- stigma for neighbourhood	siting considerations for these types	proper management.
	- health concerns	of facilities should address: odour,	Potential for odour and vermin
		heavy truck traffic, truck queuing	problems at community
	<ul> <li>Potential odour effects have been</li> </ul>	nuisance and litter. State-of-the-art	composting facility.
	significant enough to have leaf and	odour control features should be	
	yard waste composting facilities	design requirements. Local residents	
-	closed (RIS, 1993; J. Scott, 1993)	should be on the	
	· Possible displacement of residents for	management/monitoring committees	
	the siting of a new facility.	(Lesnicki, 1993).	
	· Potential for odour and vermin	· As management of the facility should	
	problems at community composting	comply with all operational	
	facility.	requirements, the requirements	
		should be reviewed frequently due to	
		the limited experience in composting	
		on a large scale.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities - continued			
Centralized windrow composting of leaf and yard waste     In-vessel composting of source separated organics     Community composting	*	Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved (Maritato et al. 1992).	
		However, health effects could be monitored for workers and the neighbouring residents over an initial	
		period at the required facility (Taylor, 1993). Some effects likely to be mitigated	
		over time due to greater familiarity with effects and mitigation (e.g. improvements to siting design,	
	•	operations and technology).  • Proper supervision of community composting	
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre     Non-profit reuse centre	Traffic concerns     Visual effect of large bins in plazas     Centres may not be desirable in all	Locate Reuse Centres in areas of compatible land use.	. No effect
Charitable reuse centres     Food reuse organization     Special goods exchange days	areas due to stigma.		

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry recyclables	· Potential nuisance effects:	· Mitigation will need to encompass	· Possible displacement of residents
· Construct new MRF or	- litter	proper siting and management.	from the siting of a new facility.
improve/expand existing MRF	- visual	· Siting: MRF's should be sited in	<ul> <li>Minor nuisance effects such as</li> </ul>
	- traffic, truck queuing	areas of compatible land use. The	traffic, litter and noise. Effects
•	- noise	siting considerations for these types	dependent on operation, type of
	- childrens safety	of facilities will need to address:	material, sensitivity and number of
	<ul> <li>property devaluation</li> </ul>	heavy truck traffic, noise, visibility,	people near facility.
	<ul> <li>illegal dumping at centre</li> </ul>	truck queuing, litter, and the	
		possibility of excess storage (Lesnicki,	
	· Possible displacement of residents	1993).	
	from the siting of a new facility.	Management: The Facility will need	
		to be managed in such a way as to	
		control dust, litter, odour, rodents	
		and other pests, and excess materials.	
		Many of these effects could be	
		controlled by proper site design and	
		planning (berms, fences, etc.)	
		<ul> <li>Mitigation measures will need to be</li> </ul>	
		developed on a system-wide basis for	
		the management of excess materials	
		as a result of over-supply of some	
		material markets. While these	
		materials may not be kept at the	
		MRFs, storage will be required	
		elsewhere.	
		· Local residents should be on a	
		monitoring/management committee.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			. ,
<ul> <li>Drop-off depot for dry recyclables</li> <li>Depots located at transfer stations</li> </ul>	Potential nuisance effects:	Mitigation will need to encompass proper siting and management.	Potential minor nuisance effects at some facilities.
	- visual - traffic, truck queuing - noise	should be sited in areas of compatible land use. These facilities	rossiole displacement for new facilities.
	- child safety	are expected to be significantly smaller in scale than Public MRFs.	
	- illegal dumping at centre	The siting considerations for these	
	Possible displacement for new	types of facilities will need to address: truck traffic, possibility of	
	facilities.	truck queuing, noise, visibility, litter, and possibility of excess storage.	
		Management: The Facility will need to be control nuisance effects, and	
		excess materials. Many of these	
		effects could be controlled by proper site design and planning (berms,	
		fences, etc.)  Mitigation measures will need to be	
		developed on a system-wide basis for	
		the management of excess materials as a result of over-supply of some	
		material markets. While these	
		materials may not be kept at the	
		be required elsewhere.	

	Determin Defende	Mitiration/Enhancement	Commonent Net Effects
Component Category/Components	I otential Effects	Wingarion Chimano	
Residential Promotion and Education			
Promotion/education program on	· No effect	Mitigation not required	· No effect
Expanded Blue Box program			
Promotion/education program on			
source reduction/ pre-			
cycling/reuse/recycling			
· 3Rs promotion and education program			
· Consumer education program			

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### GENERIC COMPONENTS NET EFFECTS TABLE H4.2

MUNICIPALITY: GTA

: Potential Local Community Impacts CRITERION

System: Residential Expanded Blue Box Indicator: Potential Effects on Special and Sensitive Groups

No effect  No effect  No effect  No effect  - Mitigation not required  No effect  - Mitigation not required  No effect  - Mitigation not required  - Mitigation not required  No effect  - More files and physically challenged may have difficult time setting out recyclable material for pick-up and using drop-off facilities.  - Mitigation not required  No effect	
d physically challenged may Provide maximum convenience possible.  Pooff facilities.  Mitigation not required Mitigation of required Provide maximum convenience possible.	Potential Effects
nd physically challenged may Provide maximum convenience material for pick-up and boosible.  Off facilities.  Mitigation not required	effect
· Mitigation not required	erly and physically challenged may e difficult time setting out relable material for pick-up and ig drop-off facilities.
	effect

· No effect
· Possible occupational safety concerns with drivers and handlers of HHW.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Although the research (Curtis et al., 1991) indicates that properly managed compositing produces a safe product, there are: Possible health effects on allergy sufferers, people with respiratory aliments, people with immunodeficiencies. Possible employee health concerns (Taylor, 1993).	Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curtis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction.  Prudence dictates that employees should practise proper hygiene and wear protective clothing.  Health effects monitoring for employees and high-risk residents should be an operational condition.	Employees at compost facilities may be exposed to death and safety hazards. Should be minimized by education. Could be mitigated by proper design and control.  Potential for health effects (odours) on allergy sufferers, people with immuno-deficiencies, etc. Magnitude of effect may be minimized by proper sting considerations of new facilities and proper management.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Onon-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Food contamination issue and liability concerns of donors (Wrigley, 1993).     Positive effect for low-income and disabled groups.     Possible transfer of pests in reuse centers, exchange days, etc.	Train food distribution groups in potential contamination/spoilage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials.	. No effeet
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRF	· Possible employce health/safety concerns.	· Educate/train employees on health and safety hazards and precautions.	Possible employee health/safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables     Depots located at transfer stations	Possible employee health/safety concerns.	<ul> <li>Educate/train employees on health and safety hazards and precautions.</li> </ul>	· No effect
Residential Promotion and Education  Promotion/cducation program  Promotion/education program on source reduction/ precycling/reuse/recycling  3Rs promotion and education program  Consumer education program	. No effect	Mitigation not required	· No effect

### TABLE H4.3 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential Local Co

N : Potential Local Community Impacts

System: Residential Expanded Blue Box Indicator: Potential Effects on Community

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Curbside collection of residential garbage from single family dwellings     Collection of residential garbage from multi-family units     Self haul of garbage     Regional recycling legislation	. No effect	· Mitigation not required	· No cffect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	Potential minor traffic inconvenience in communities where materials are sorted at the truck.  Potential increase in community pride from participation.	. Mitigation to include proper design of haulage system.	Potential minor traffic inconvenience in communities where materials are sorted at the truck. Effect reduced by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	. No effect
Residential Household Composting  - Backyard composter distribution programs Door to door distribution of backyard composters to 80% of single family households Promotion of vermicomposting to multi-family units Large 3-bin composting units distributed to apartment and cooperative housing complexes	No effect	Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Dropoff)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots	Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots.	Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them.     Assistance in organization of community garage sales, flea markets etc.     Enforcement for illegal dumping.	Minor negative community stigma effect on community image from illegal dumping.
Composting Facilities  • Centralized windrow composting of leaf and yard waste  • In-vessel composting of source separated organics  • Community composting	· Possible stigma effect in some communities.	State-of-the-art odour control should be an operational condition.	· Possible stigma effect in some communities.
Reuse Centres and Activities  • Municipal reuse centre  • Private reuse centre  • Non-profit reuse centre  • Charitable reuse centres  • Food reuse organization  • Special goods exchange days	· Possible stigma effect in some communities.	Location of the reuse centres in suitable land use area.	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Communent Not Effacts
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRF	Possible stigma effect in some communities.	· Mitigation not required	Possible stigma effect and disruption in some communities. Magnitude of effect dependant on site location and management of the facility.
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables Depots located at transfer stations	. No effect	Mitigation not required	. No effect
Residential Promotion and Education Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-	· Possible increase in community pride.	Mitigation not required	Possible increase in community pride.
eyeling/resec/recycling  • 3Rs promotion and education program  • Consumer education program			

### GENERIC COMPONENTS NET EFFECTS TABLE H4.4

MUNICIPALITY: GTA

: Potential Local Community Impacts CRITERION

System: Residential Expanded Blue Box Indicator: Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households  Community recycling centres  Engineered recycling depot  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated	Possible nuisance effects on community features and businesses from traffic and hauling.	Planning and co-ordination of haulage system to minimally disrupt local community features and businesses.	Possible nuisance effects on community features and businesses from traffic and hauling. Effect reduced by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement,	Component Net Effects
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	· No effect
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	No effect	Mitigation not required	. No effect

Potential Effects
· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Centralized windrow composting of leaf and yard waste	Potential nuisance effects:	Existing facilities. Proper management of the material must be	Possible displacement of community features and businesses due to
In-vessel composting of source     separated organics	<ul> <li>scavenging animals and birds</li> <li>visual</li> </ul>	maintained in reducing odour and scavenging animal problems. MOEE	siting of new facility.  Potential odour and health concerns
Community composting	<ul> <li>illegal dumping</li> <li>traffic, truck queuing</li> </ul>	proposed regulations (MOEE, 1993).  Do not appear to mitigate all of the	and minor nuisance effects such as traffic, litter, birds, vermin and
	- noise - child safety	documented effects.  Composting sites should be located	noise associated with centralized composting facilities. May be
	<ul> <li>property devaluation</li> <li>stigma</li> </ul>	in areas of compatible land use. The siting considerations for these types	reduced with public education and consultation and proper
	- health concerns	of facilities should address: odour,	management.
	Potential odour effects have been	noise and litter.	
	significant enough to have leaf and	State-of-the-art odour control     features should be design	
	closed (RIS, 1993; J. Scott, 1993).	requirements. People who work at	
	Possible displacement of businesses     and community features for the siting	community features and businesses	
	of a new facility.	management/monitoring committees.	
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre	Minor nuisance related effects on neighbouring features and businesses.	· · Mitigation not required	· No effect
Non-profit reuse centre	Visual blight/image effect.	,	
Charitable reuse centres     Food reuse organization			
· Special goods exchange days			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry recyclables	· Potential puisance effects:	. Mitigation will need to encompass	· Possible displacement of community
· Construct new MRF or	- litter	proper siting and management.	features and businesses from siting
improve/expand existing MRF	- visual	· Siting: MRF's should be sited in	of new facilities.
	- traffic, truck queuing	areas of compatible land use. The	· Minor nuisance effects such as
	- noise	siting considerations for these types	traffic, litter and noise. Effects
	- child safety	of facilities will need to address:	dependent on operation, type of
	<ul> <li>property devaluation</li> </ul>	heavy truck traffic, noise, visibility,	material, sensitivity and number of
	- illegal dumping	truck queuing, litter, and the	people near the facility.
	•	possibility of excess storage (Lesnicki,	
	· Possible displacement of community	1993).	
	features and businesses from siting of	Management: The Facility will need	
	new facilities.	to be managed in such a way as to	
		control dust, litter, odour, rodents	
		and other pests, and excess materials.	
		Many of these effects could be	
		controlled by proper site design and	
		planning (berms, fences, etc.)	
		<ul> <li>Mitigation measures will need to be</li> </ul>	
		developed on a system-wide basis for	
		the management of excess materials	
		as a result of over-supply of some	
		material markets. While these	
		materials may not be kept at the	
		MRFs, storage will be required	
		elsewhere.	
		· Local residents should be on a	
		monitoring/management committee.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects ·
Residential Recycling Depots and Transfer Stations	٠	Siting: Depots and transfer stations	· Minor nuisance effects on
<ul> <li>Drop-off depot for dry recyclables</li> <li>Depots located at transfer stations</li> </ul>	· Nuisance effects: - litter	should be sited in areas of compatible land use. These facilities are expected to be significantly	community features and businesses at some facilities.  Possible displacement of community
	- visual - traffic, truck queuing - noise	smaller in scale than Public MRFs.  The siting considerations for these	features and businesses from location of new facilities.
	<ul> <li>child safety</li> <li>property devaluation</li> </ul>	types of facilities will need to address: truck traffic, possibility of	
	- illegal dumping	truck queuing, noise, litter, and possibility of excess storage.	
	Possible displacement of community features and businesses from siting of	Management: The Facility will need to be managed in such a way as to	
	new facilities.	control dust, litter, odour, rodents	
		Many of these effects could be	
		controlled by proper site design and planning (berms, fences, etc.)	
		Mitigation measures will need to be developed on a system-wide basis for	
		the management of excess materials as a result of over-supply of some	
		material markets. While these	
		MRFs, storage will be required	
		elsewhere.	

Commonent Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· Promotion/education program on	. No effect	· Mitigation not required	· No effect
Expanded Blue Box program Promotion/education program on			
source reduction/ pre-			
cycling/reuse/recycling			
3Rs promotion and education			
program			
· Consumer education program			



# TABLE H4.5 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA CRITERION: Potent

': GTA System : Expanded Blue Box : Potential For Broad Social Impact Indicator: Potential for Lifestyle Changes

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage  Regional recycling legislation	. No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.     Bins may attract nuisances if not picked up often.	Ensure convenient location of dropolf point for apartment dwellers. Assistance in the development of 3Rs apartment committees, "Welcome Wagons", etc. Ensure the provision of information and educational services for new residents (Environics, 1990). This must be a continual effort to address turnover and increase in future densities. Ensure regular pick-up.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride	· Mitigation not required	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multifamily units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  Encourages positive local action.  Inconvenience and annoyance for a minority of people (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals).  Promotion of vermicompositing in apartments should increase awareness of role of apartment residents in 3Rs and should lead to greater support for and involvement in 3Rs.  Residents of apartment buildings may experience and increase in insects and rodents, odour and health concerns.	Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Environies, 1990; Maclaren, 1990; Metropolitan Works Committee, 1992).  Target apartments with action Promotion/Education programs and consultation program to maximize participation - modify composting program/components as required.  On-going education for proper use.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.     Supports other 3Rs activities.     Variety of lifestyle inconveniences.

Component Net Effects	Residents may become more aware of HHW and white goods management and change purchasing attitudes.	. No effect
Mitigation/Enhancement	Improved service for white goods and bulky items. Develop special waste days and special depots for multi-family building collection. Make collection. Make collection drop-off point convenient for all households and/or continue toxic taxi. Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HIHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992).	· Mitigation not required
Potential Effects	White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping. Consumers may become much more concerned about size and durability of appliances and furniture. Residents may become more aware of HIHW and white goods management and change purchasing attitudes.	. No effect
Component Category/Components	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste drop-off days Special household hazardous waste drop-off days Toxic Taxi Service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  • Municipal reuse centre  • Private reuse centre  • Non-profit reuse centre  Charitable reuse centres  • Food reuse organization  • Special goods exchange days	In some instances, has social welfare benefits.     May contribute to acceptance of using repaired/second hand items rather than buying new products.     Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc.	Provide incentives for establishing reuse centres and for holding "garage" sales.	Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products.     In some instances, has social welfare benefits.     Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness: through communal garage sales, flea markets, bazaars, etc.
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRF	. No effect	· Mitigation not required	· No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations	. No effect	· Mitigation not required	· No effect

cation On program	Potentially encourages positive changes to conserver and waste diversion attitudes, emphasizing reduction and reuse, as well as consoliting could look to itserving	· Expand and refine	
gram	Illy encourages positive to conserver and waste n attitudes; emphasizing m and ruces, as well as possible to the control load to itseet to	· Expand and refine	
gram	to conserver and waste a attitudes; emphasizing in and reuse, as well as		· Potentially positive effect;
l on program	a attitudes, emphasizing in and reuse, as well as	promotion/education programs to	encourages positive changes to
program	n and reuse, as well as	target non-participating groups and	conserver and waste diversion
program	a post to head the control of	to allow for changes in demographic	attitudes; emphasizing reduction
program	6, could lead to litestyle	make-up of GTA (Environics, 1990;	and reuse, as well as recycling,
		Morgan-Fraser, 1993).	could lead to lifestyle change.
Consumer concernon programm	Could literease demand for packaging reduction (Environics 1990)	should be based on successful	
		programs (e.g., Folz & Hazlett.	
		1990). For example, pamphlets and	
		brochures (in utility bills, etc.) and	
		community information meetings.	
		· The role of the schools could be	
		important, particularly for new	
		Canadians whose children are	
		receiving the only English instruction	
		in the family. Many School Boards	
		have environmental education	
		committees and the schools are	
		increasingly being led by Principals	
		& V.P.'s eager to spread an	
		environmental message.	



### TABLE H4.6 GENERIC COMPONENTS NET EFFECTS

Y:GTA System: Residential Expanded Blue Box: Potential For Broad Social Impact Indicator: Potential Effects on Employment MUNICIPALITY: GTA CRITERION

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside ecilection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	. No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials  Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in recycling collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction is uncertain. As recycling becomes more centralized the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in North America.	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to changes, others will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Fiducation and re-training will be key components to help the working population adapt to new and evolving sectors in the	Direct employment gains, primarily in Iow-skill jobs, are likely in recycling industries. Indirect (secondary and tertiary) effects could occur. Magnitude, timing and direction is uncertain. Long term employment gains in recycling industries may be dependent on capturing new markets with expanded Blue Box items.
		green economy.	

Component Category/Components	Potential Effects	Mitigation/Enhancement .	Component Net Effects
Residential Leaf and Yard Waste Collection  • Curbside collection of leaf and yard waste  • Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multi-family units  Targe 3-bin composting units distributed to apartment and cooperative housing complexes	Direct employment gains, primarily in low skill jobs, are likely in the mandgeturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Indirect effects could include both short and long term changes in secondary and teritary employment. Magnitude, timing and direction of effects is upcertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IHHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Dropoff)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adept to new and evolving sectors in the	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
		"green" economy.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing, and direction of effects is uncertain. Minor short-term increase in construction sector employment.	has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing, and direction of effects is uncertain. Minor short-term increase in construction sector employment.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	• Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables     Construct new MRF or     improve/expand existing MRF	Direct employment is likely to be maintained at the MRFs and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain. Minor short-term increase in construction sector employment.	· Mitigation not required	
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables  Depots located at transfer stations	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment.  Minor short-term increase in construction sector employment.	Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment.  Minor short-term increase in construction sector employment.

Residential Promotion and Education  Promotion/education program  Promotion and education  Program  Magnitude, timing and direction of effects is uncertain.  Promotion/education program  Promotion and destribute both base major implications of the conomy and employees. While major implication solvers as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate thickness promotion and evolving sectors in the major in the program promotion and education and education and education and education and education and education program  Promotion and Education procured and education and education and education and education and education program  Promotion and education and education and education and evolving sectors in the major and evolving sectors in the promotion and education and edu					li
and Education  Direct employment gains are likely in program  printing, production and distribution.  program on indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
N/education program on printing, production and distribution.  Blue Box program printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.					_
Neducation program on printing, production and distribution. Halve Box program printing, production and distribution. Indirect effects could include both short and long term changes in secropting and education and education program education program education program education program education program effects is uncertain.					_
Blue Box program  Jieducation program on Indirect effects could include both Indirect effects could include both short and long term changes in sectordary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Promotion/education program on	· Direct employment gains are likely in	· A transition to conserver attitudes	· Direct employment gains are likely	_
Neducation program on Indirect effects could include both fuction/ pre-stored in short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Expanded Blue Box program	printing, production and distribution.	has major implications for the	in printing, production and	_
short and long term changes in sselvecycling secondary and tertiary employment.  Magnitude, timing and direction of effects is uncertain.	Promotion/education program on	Indirect effects could include both	economy and employees. While many	distribution. Indirect effects could	_
use/recycling secondary and tertiary employment.  Magnitude, timing and direction of effects is uncertain.	source reduction/ pre-	short and long term changes in	persons in society will adapt easily to	include both short and long term	
education program  education program	cycling/reuse/recycling	secondary and tertiary employment.	these changes, many will not.	changes in secondary and tertiary	
education program	3Rs promotion and education	Magnitude, timing and direction of	Mitigation is likely to occur as the	employment. Magnitude, timing	_
education program	program	effects is uncertain.	economy readjusts to 3Rs	and direction of effects is uncertain.	_
partnership between government, business and labour to facilitate thi change in attitude. Education and re-training will be key components help the working population adapt new and evolving sectors in the	Consumer education program		management. There should be a		
business and labour to facilitate thi change in attitude. Education and re-training will be key components help the working population adapt new and evolving sectors in the			partnership between government,		_
change in attitude. Education and re-training will be key components help the working population adapt new and evolving sectors in the			business and labour to facilitate this		_
re-training will be key components help the working population adapt new and evolving sectors in the			change in attitude. Education and		_
help the working population adapt			re-training will be key components to		
new and evolving sectors in the			help the working population adapt to		_
			new and evolving sectors in the		
"green" economy.			"green" economy.		

# TABLE H4.7 GENERIC COMPONENTS NET EFFECTS

MUNICIPALÍTY : GTA System : Residential Expanded Blue Box CRITERION : Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials Expanding curbside collection  Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated	Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and longterm changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and lead to improved economies of scale for recycling industries.	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and cavironmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the	Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and terriary sectors. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation will enhance benefits.  Recycling in all multi-family buildings will increase the supply of recyclable material and lead to increase the supply of increase.
	III.dusti ics.	opportunities for marketing green systems and technologies nationally and internationally.	improved economies of scale for recycling industries.

Commence of the second	Defended Defender	N. C.	O
component category/components	I Occurial Elects	Mulgarion/Emiancement	Component iver miecus
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste	. No effect	· Mitigation not required	· No effect
· Drop-off depot for leaf and yard waste			
Residential Household Composting			
Backyard composter distribution	· Minor direct economic benefits are .	· The economic base is shifting from	· Minor direct economic benefits are
programs	likely in the manufacturing of	manufacturing to a more service	likely in the manufacturing of
· Door to door distribution of backyard	composters, and in the management	orientation. Along with this trend is	composters, and in the management
composters to 80% of single family	of the program. Indirect economic	the movement towards a "green"	of the program. Indirect economic
households	effects could include both short and	economy. This transition is being	effects could include both short and
· Promotion of vermicomposting to	long-term changes in secondary and	made by various companies and	long-term changes in secondary and
multi-family units	tertiary sectors and cost savings from	sectors. However, the long-term	tertiary sectors and cost savings
· Large 3-bin composting units	a reduction in landfill fees, due to	competitiveness of the region may	from a reduction in landfill fees,
distributed to apartment and	reduced volumes. Magnitude, timing	be dependent on the others making	due to reduced volumes.
cooperative housing complexes	and direction of effects are uncertain.	the transition as well. Government,	Magnitude, timing and direction of
	Over the long-term, this initiative	business, and environmental	effects are uncertain.
	could lead to the development of	interests should work in partnership	
	GTA (Although the industries could	Roundtables on the Economy and	
	locate elsewhere in North America).	Environment), and grasp the	
	-	opportunities for marketing "green"	
		systems and technologies nationally	
		and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HIIW) Special household hazardous waste drop-off days Toxic Taxi service	Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems,	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership	Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects are uncertain.
Mobile IIIIW depots	technologies, and products in the GTA (Lesnicki and Mercer, 1993).	to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	,

Minor direct economic benefits are likely for composting facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects are uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Lesnicki and Mercer, 1993).
Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects are uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.

Commission Category/Commissionic	Potential Defracte	Mais continue La honoroment	Communicate NI de DOF ada
Public MRFs			Component tree process
Processing centre for dry recyclables Construct new MRF or improve/cxpand existing MRF	Provides the infrastructural support for recycling materials by the private and public sector.     Provides a minor economic benefit in the construction sector.	manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally	Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.  Direct minor positive short-term construction benefits.
Residential Recycling Depots and `Transfer Stations		and illettiationally.	
Drop-off depot for dry recyclables Depots located at transfer stations	Provides the infrastructural support for recycling materials by the private and public sector.  Provides a minor economic benefit in the construction sector.	· Mitigation not required	Provides a minor short term economic benefit in the construction sector.  Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre- cycling/reuse/recycling 3Rs promotion and education program Consumer education program	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	Mitigation not required	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

### GENERIC COMPONENTS NET EFFECTS TABLE H4.8

CRITERION

: Potential For Broad Social Impact Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industries System : Residential Expanded Blue Box MUNICIPALITY: GTA

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multifamily units  Self haul of garbage  Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Figürecred recycling depot Recycling at all multi-family buildings of greater than 6 units	All landlords may be required to     provide space, facilities and staff time to accommodate recycling and may incur additional costs.	Province to consider additional costs for recycling in annual rent review.	Potential increase costs for tenants and landlords.
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No cifect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Backyard composter distribution programs     Door to door distribution of backyard composters to 80% of single family households     Promotion of vermicomposting to multi-family units     Large 3-bin composting units distributed to apartment and cooperative housing complexes	Landlords may be required to provide space and equipment for composters and may experience increased costs associated with insect and rodent control and staff, etc.	Province to consider increase in costs associated with composting services in annual rent review applications.	Potential increase in costs for tenants and landlords
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots	The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products).  Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable.	Retail stores could develop buyback programs for large and bulky items. The consumer would then not be required to disperse items.	In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods.
Composting Facilities			
Contralized windrow composting of leaf and yard waste     In-vessel composting of source separated organics     Community composting	· No effect	Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	. No effect	· Mitigation not required	· No effect
Public MRFs  • Processing centre for dry recyclables  • Construct new MRF or improve/expand existing MRF	· No effeet	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations	. No effect	Mitigation not required	. No effect
Residential Promotion and Education  Promotion/education program on Expanded Blue Box program  Promotion/education program on source reduction/ pre-cycling/reuse/recycling  3Rs promotion and education program  Consumer education program	· No effect	. Mitigation not required	· No effect



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# TABLE H4.9 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: GIA : Distribution of Social Costs and Benefits Ind

System: Residential Expanded Blue Box

Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitlgation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage  Regional recycling legislation	. No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households  Community recycling centres  Engineered recycling depot  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated	. No effect	· Mitigation not required	· No effect
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enbancement	Component Net Effects
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multifamily units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	. No effect	· Mitigation not required	· No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)  Special curbside collections of Christmas rees  Special and weekly curbside collections of white goods  Drop-off depois for white goods  Permanent drop-off depot for household hazardous waste (HHW)  Special household hazardous waste dropoff days  Toxic Taxi service  Mobile HHW depots	Residents of some municipalities are provided with white goods and HHW collection, while others are not.	Mitigation not required	Minor effect in different level of service for white goods and HHW collection in some municipalities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Contralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Local residents and businesses may receive nuisance effects related to composting for all region residents.	Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation compensation for site related impacts.     Address equity issue aspect of the siting process.	Negative distribution effect on some local communities, population groups and industries.
Reuse Centres and Activities			
Municipal reuse centre     Private reuse centre     Non-profit reuse centre     Charitable reuse centres     Food reuse organization     Special goods exchange days	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.	Mitigation not required	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRFs			=
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF	Potential negative distribution     effects on some facilities	Mitigation as "Potential Effects on Residents"	Potential negative distribution     effects on some facilities.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables  Depots located at transfer stations	· Potential negative distribution effects on some facilities.	· Mitigation as "Potential Effects on Residents"	Potential negative distribution effects on some facilities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program on	· No effect	Mitigation not required	· No effect
Expanded Blue Box program  Promotion/education program on source		,	
reduction/ pre-cycling/reuse/recycling		٠	
3Rs promotion and education program			
· Consumer education program			

# TABLE H4.10 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA CRITERION: Distrib

System: Residential Expanded Blue Box Indicator: Distribution of Lifestyle Effects

: Distribution of Social Costs and Benefits Indic

Component Net Effects	· No effect	Potential positive effect by increasing opportunity for multifamily dwelling residents to participate (Hay, ND; Environics, 1992).
Mitigation/Enhancement	· Mitigation not required	Mitigation not required
Potential Effects	· No effect	Potential positive effect by increasing opportunity for multi-family dwelling residents to participate (Hay, ND; Environics, 1992).
Component Category/ Components	Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units Self haul of garbage  Regional recycling legislation	Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Orop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.	· Mitigation not required	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	· Equitable distribution of services.	Mitigation not required	· Equitable distribution of services

Component Net Effects	No effect	· No effect	· No effect
Mitigation/Enhancement	Mitigation not required	- Mitigation not required	· Mitigation not required
Potential Effects	· No effect	. No effect	. No effect
Component Category/ Components	Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Dropodf)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depois for white goods Drop-off depois for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (IIIIW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HIHW depois	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs  Processing centre for dry recyclables  Construct new MRF or	· No effect	· Mitigation not required	·· No effect
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables     Depots located at transfer stations	· No effect	· Mitigation not required	. No effect
Residential Promotion and Education			N - 200
Promotion/education program on Expanded Blue Box program     Promotion/education program on	· No effect	· Mitigation not required	. No cliect
source reduction/ pre- cycling/reuse/recycling  3Rs promotion and education			
program Consumer education program			

### GENERIC COMPONENTS NET EFFECTS TABLE H4.11

: Distribution of Social Costs and Benefits MUNICIPALITY: GTA CRITERION : Distrib

System : Residential Expanded Blue Box Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings	. No effect	· Mitigation not required	. No effect
Collection of residential garbage from multi-family units     Self haul of garbage     Regional recycling legislation			
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	Potential positive effect through more sustainable use of resources and conservation of the environment for recycling.	Continue to promote and educate on 348 (Hay, ND; Lesnicki, 1993; Morgan-Frascr, 1993; Watson, 1993).  The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that the current generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren.	Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.  Potential positive effect through more sustainable use of resources and conservation of the environment for recycling.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household (e.g., mulch leaves and grass branches) (Lesnicki, 1993).	Evaluate the best approach to management of leaf and yard waste.  Address residential on- site mulching, chipping and composting.  Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may pass on the future ameration.	Uncertain of the long, term effect
		better process, so less facility management/decommissioning cost.	
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multifamily units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse.	Promotion and education should increase future participation rates (Environics, 1990).	Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.

Component Net Effects	Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal.	. Minor positive future generational effect.	Positive effect through the support for repaired reuse of good, and subsequent reduction of resource use.
Mitigation/Enhancement	· Mitigation not required	Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term.	Province to consider the removal of the Provincial Sales Tax or other provincial taxes for the sale of used goxds.
Potential Effects	Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal.	Costly to start-up and establish but environmentally and possibly economically beneficial in the long run.	Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future.
Component Category/Components	Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depois for white goods  Special curbside collection for bulky items  Permanent drop-off depot for household hazardous waste (HIHW)  Special household hazardous waste dropoff days  Toxic Taxi service  Mobile IIIW depois	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community composting	Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF	Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long	Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave
	run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling.		turue generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables     Depots located at transfer stations	Costly to start-up but environmentally and possibly economically beneficial in the long run.  Current generation behaviour paying cost for altering behaviour to a more sustainable society.	• Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education			
Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre-cycling/reuse/recycling 3Rs promotion and education program Consumer education program	Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available.	Education material could emphasize the benefits to future generation of 3Rs actions today.	Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.





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#### TABLE H5.1 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION : Potential Local Community Impacts

System: Residential Wet/Dry Indicator: Potential Effects on Residents

· Other components, no effect Effects uncertain with Component Net Effects recycling legislation · No effect · Mitigation not required Mitigation not required Mitigation/Enhancement · Effects uncertain with recycling legislation Other components, no effect Potential Effects · No effect residential garbage from single Garbage Collection and Disposal Separation of waste into three Regional recycling legislation family residents not serviced garbage from multi-family Provide carts to all single Drop-off depot for multifamily dwellings in three Drop-off depot for rural Collection of residential Residential Recycling and Curbside Collection of units in three streams Self haul of garbage Category/Components family households by recycling households Component streams streams Collection

Component Category/Components	Potential Effects Mitiga	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste	Seasonal separate collection of No effect  Consopoff depot for leaf and yard waste	· Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and co-operative housing complexes  Vermi-composting for multifamily households	. No effect	Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)			
Special curbside collections of Christmas trees     Special and weekly curbside collections of white goods     Drop-off depois for white goods     Special curbside collection for bulky items     Permanent drop-off depoit for HIIW     Special IIIIW drop-off days     Toxic Taxi service     Mobile HIIW depois	. No effect	· Mitigation not required	· No effect

Component	Potential Effects	Mitigation/Enhancement	Component Net Effects
Category/Components			
Composting Facilities			
· Central composting facilities	Potential nuisance effects:	· Composting sites will need to be	· Potential nuisance effects
(in-vessel or windrow) for	odour	located in areas of compatible land	· Possible displacement of
composting of source	- scavenging animals and birds	use. The siting considerations for	residents from the location of
separated household organic	- visual	these types of facilities should	s new facility
(wet stream)	- illegal dumping	address: odour, heavy truck traffic,	· Potential for odour effects
· Centralized windrow	- traffic, truck queuing	truck queuing, nuisance and litter.	health and salety concerns and
composting of leaf and yard	- noise	State-of-the-art odour control	minor nuisance effects such as
waste	- child safety	features should be design	traffic, litter, visual, birds,
	- property devaluation	requirements along with proper	vermin and noise. These
	- stigma for neighbourhood	management of the material and	effects may be more extensive
	· Health Concerns	initiatives to reduce the possibility of	in wet/dry than in leaf and
	Odour effects from composting facilities that	vectors and vermin. Local residents	yard waste composting.
	receive mixed IC&I compost have been significant	should be on the	
	enough to have facilities closed down (RIS, 1993;	management/monitoring committees	
	J. Scott, 1993; Lannon, 1993). Odour effects from	(Lesnicki, 1993).	
	the wet stream of a Wet/Dry system in the		
	province are relatively unknown. The Guelph		
	Pilot Wet/Dry Project was of too small a scale to		
	comparatively evaluate.		
	As management of the facility should comply with		
	all operational requirements, the requirements		
	should be reviewed frequently due to the limited		
	experience in composting on a large scale with a		
	wet/dry system.		
	Wet/Dry systems can be highly contaminated		
	unless a significant percentage of the population,		
	very diligently source separates the waste. If there		
	is very high contamination, it may lead to		
	increased odour problems and the possibility of		
	health concerns such as increased levels of		
	pathogens and bacteria (e.g. diapers been tossed in		
	with the wet stream).		

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued)			
Central composting facilities (in-vessel or windrow) for composing of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste	Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993).  Possible displacement of residents from the location of a new facility.		
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Charitable reuse centres  Food reuse organization  Special goods exchange days	rraffic concerns visual effect of large bins in plazas centres may not be desirable in all areas due to stigma	. Locate Reuse Centres in areas of compatible land use	· No effect

Component Net Effects	residents from the stiing of a residents from the sting of a residents.  For these types for these types and minor nuisance effects.  These effects may be more extensive in a wet/dry system than with other facilities, because of potential for contamination.  The way as to contamination.
Mitigation/Enhancement	Mitigation will need to encompass proper sting and management sting. MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, odour, and the possibility of excess storage (Lesnicki, 1993).  Management: The facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pest, and excess materials and other pest, and excess materially be controlled by proper site design and planning (berms, fences, etc.).  Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some materials may not be kept at the MRFs, storage will be required elsewhere.
Potential Effects	Potential nuisance effects:  - litter  - visual  - traffie, truck queuing  - noise  - child safety  - property devaluation  - lillegal dumping at centre  - odour (due to possibility of contamination of the dry stream)  - Possible displacement of residents from the siting of a new facility.
Component Category/Components	Public MRFs  New MRF or improve/ expand existing MRFs to process larger dry stream of recyclables

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry	· Potential nuisance effects:	· Mitigation will need to encompass	· Potential minor nuisance
recyclables	- litter	proper siting and management.	effects at some facilities
Depots located at transfer	- visual	Siting: Depots and transfer stations	Possible displacement of
stations/landfills	- traffic, truck queuing	should be sited in areas of	residents from the sting of a
	- 110150	companion and as mass facilities	farman man
	- cniid salety - property devaluation	are expected to be againted in years smaller in scale than Public MRFs.	
	- illegal dumping at centre	The siting considerations for these	
	- odour (due to possibility of contamination of the	types of facilities will need to	
	dry stream)	address: truck traffic, possibility of	
	· Possible displacement of residents from the siting	truck queuing, noise, litter, odour	
	of a new facility	and the possibility of excess storage.	
		· Facility management will need to	
		control nuisance effects and excess	
		materials. Many of these effects	
		could be controlled by proper site	
		design and planning (berms, fences,	
		erc.).	
		.Miligation measures will need to be	
		developed on a system-wide basis	
		for the management of excess	
		materials as a result of over-supply	
		of some material markets. While	
		these materials may not be kept at	
		the depots/transfer stations, storage	
		will be required elsewhere.	
		· Odour effects can best be controlled	
		by ensuring a low contamination	
		rate.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program for wet/dry system	· No effect	· Mitigation not required	No effect
Promotion/education program for source reduction/pre-			
cycling, reuse and recycling  3Rs promotion and education			
program Consumer education program			

### TABLE H5.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential Loca

Y: GTA
 : Potential Local Community Impacts

System : Residential Wet/Dry Indicator: Potential Effects on special/sensitive groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams  Collection of residential garbage from multi-family units in three streams  Self haul of garbage  Regional recycling legislation	Wet/Dry collection may seriously effect elderly and disabled populations (mobility impaired) who must move 90 gallon carts in all seasons. Winter may be very problematic due to snow on curbs. They also may have problems cleaning the carts, and with nuisance effects (odour, vermin, etc.) (City of Guelph, 1991).	Mitigation may need to include alternative collection units for these groups	Wet/Dry System may be very difficult for elderly and disabled groups
Residential Recycling and Collection  Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling ropo-off depot for rural households	Wet/Dry collection may seriously effect elderly and disabled populations (mobility impaired) who must move 90 gallon carts in all seasons. Winter may be very problematic due to snow on curbs. They also may have problems cleaning the carts, and with nuisance effects (odour, vermin, etc.) (City of Guelph, 1991).	Mitigation may need to include     alternative collection units for these groups	Wet/Dry-System may be very difficult for elderly and disabled groups
Residential Leaf and Yard Waste Collection Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	. Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Odour from backyard composters affects owners and/or neighbours Lower participation from the elderly- physically demanding for some	Make information available on maintaining household composters to assist in reducing odour	Nuisance effeet associated with odour and physical strain on elderly
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly eurbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Possible occupational safety concerns with drivers and handlers of HHW	HIFW education for drivers and handlers	Minor possible occupational safety concerns with drivers and handlers of HHW

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities		-	
Central composting facilities (in-	· Although the research (Curtis et al.,	· Since the destruction of pathogens in	· Employees at MRFs and in
vessel or windrow) for composting	1991) indicates that properly managed	compost is directly proportional to	particular compost facilities may
of source separated household	composting produces a safe product,	the temperature increases achieved in	be subjected to a variety of health
organic (wet stream)	there are: Possible health effects on	the piles (Curtis et al., 1991),	and safety hazards such as IIIIW .
· Centralized windrow composting of	allergy sufferers, people with respiratory	appropriate operational procedures	and sharps in "wet" stream.
leaf and yard waste	ailments, people with immuno-	should be instituted to maximize this	Hazards should be minimized by
	deficiencies; possible employee health	destruction.	consultation and education and
	concerns (Taylor, 1993).	Prudence dictates that employees	mitigated by proper design and
	<ul> <li>Possible negative health effects may be</li> </ul>	should practise proper hygiene and	control.
	heightened because of the potential for	wear protective clothing	· · Potential for health effects
	contamination of the "Wet" stream by	· Health effects monitoring for	(odours) or allergy sufferers,
	other materials. Household hazardous	employees and high-risk residents	people with immuno-deficiencies,
	wastes and sharps (razors, needles, etc.)	should be an operational condition	etc. from composting facilities.
	may be significant concerns (Taylor,	· Periodic monitoring of the piles to	
	1993). The actual effects are relatively	determine type and extent of	
	unknown due to limited North American	contamination	
	experience with wet/dry systems.		
Reuse Centres and Activities			
. Municipal reuse centre	. Food contamination issue and liability	. Train food distribution groups in	No effect
Private reuse centre	concerns of donors (Wrigley, 1993).	potential contamination/spoilage	
· Non-profit reuse centre	· Positive effect for low-income and	Enact "Good Samaritan" Legislation	
· Charitable reuse centres	disabled groups	to absolve donor of responsibility	
· Food reuse organization	Possible transfer of pests in reuse	· Cleaning and fumigation of materials.	
special goods excitating days	centres, exchange days, etc.		

Commonent Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs  New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	Possible employee health/safety concerns due to contamination of the "dry" stream with hazardous materials (sharps, HHW, etc.) (Taylor, 1993).	Educate/train employees on health and safety hazards and precautions.     Achieve low contamination rates of streams.	Magnitude of health and safety effects will be dependent on the contamination level of the "dry" stream and appropriate clothing and management for the employees.
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	Possible employee health/safety concerns due to contamination of the "dry" stream with hazardous materials (sharps, HHW, etc.) (Taylor, 1993).	Educate/train employees on health and safety hazards and precautions. Achieve low contamination rates of streams.	Magnitude of health and safety effects will be dependent on the contamination level of the "dry" stream and appropriate clothing and management for the employees
Residential Promotion and Education  Promotion/education program for wet/dry system  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	. No effect	· Mitigation not required	. No effect

# TABLE H5.3 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: Potential Local Community Impacts

System: Residential Wet/Dry Indicator: Potential Effects on Communities

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation	Traffic inconveniences are possible due to the wet/dry collection system, and increase in materials being transported.	. Mitigation not required	Traffic inconveniences are possible due to the wel/dry collection system, and increase in materials being transported.
Residential Recycling and Collection  Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural house	Potential minor traffic inconvenience in communities when materials are deposited in the truck.     Potential for increase in community pride.	· Mitigation not required	Potential minor traffic inconvenience in communities when materials are deposited in the truck.     Potential for increase in community pride.
Residential Leaf and Yard Waste Collection  Seasonal separate collection of leaf and yard waste  Drop-off depot for Icaf and yard waste	. No effect	· Mitigation not required	No effect

	· · · · · · · · · · · · · · · · · · ·		
Component Net Effects	. No effect	Minor negative stigma effect on community image from illegal dumping.	Possible stigma effect in some communities. Magnitude of effect dependent on site     location and management of the facility.
Mitigation/Enhancement	• Mitigation not required	Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them.     Assistance in organization of community garage sales, flea markets, etc.      Enforcement for illegal dumping.	State-of-the-art odour control should be an operational condition.
Potential Effects	. No effect	Failure of programs tend to have a negative effect on community image. For example, couches, mattresses in vacant lots.	Possible stigma effect in some communities
Component Category/Components	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family, households  Large 3-bin composting units distributed to apartment and co-operative housing complexes  Vermi-composting for multi-family households	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Composting Facilities  Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Non-profit reuse centre  Charitable reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	· Possible stigma effect in some communities	· Location of the reuse centres in suitable land use area.	· No effect
Public MRFs  New MRF or improve/expand existing MRF's to process larger dry stream of recyclable	<ul> <li>Possible stigma effect in some communities.</li> </ul>	· Mitigation not required	Possible stigma effect in some communities.
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations	. No effect	. Mitigation not required	. No effeet
Residential Promotion and Education  Promotion/education program for wet/dry system  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	Possible increase in community pride.	· Mitigation not required	· Possible increase in community pride.



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### GENERIC COMPONENTS NET EFFECTS TABLE H5.4

MUNICIPALITY: GTA

CRITERION : Potential Local Community Impacts

System : Residential Wet/Dry Indicator: Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects.	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams  Collection of residential garbage from multi-family units in three streams  Self haul of garbage  Regional recycling legislation	. No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Provide carts to all single family households  Separation of waste into three streams  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	· No effect	· Miligation not required	· No effect
Residential Leaf and Yard Waste Collection Seasonal separate collection of leaf and yard waste	No cffect	. Mitigation not required	. No effect

	•	
Component Net Effects	· No effect	No effect
Mitigation/Enhancement	· Mitigation not required.	Mitigation not required
Potential Effects	. No effect	. No effect
Component Category/Components	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots

Central composting facilities (in- vessel or windrow) for composting of source separated household of source separated household organic (wet stream) Centralized windrow composting of leaf and yard waste - traffic, truck queuing - traffic, truck	Potential nuisance effects:  - odour  - scavenging animals and birds  - visual - illegal dumping - traffic, truck queuing - noise	Composting sites will need to be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements along with proper management of the	Potential nuisance effects     Possible displacement of     community features and business     from the location of a new facility     Potential for odour effects health     and safety concerns and minor     nuisance effects such as traffic,
	Potential nuisance effects:  - odour  - scavenging animals and birds  - visual  - tillegal dumping  - traffic, truck queuing  - noise	Composting sites will need to be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements along with proper management of the	Potential nuisance effects     Possible displacement of     community features and business     from the location of a new facility     Potential for odour effects health     and safety concerns and minor     nuisance effects such as traffic,
· · · · · · · · · · · · · · · · · · ·	odour     scavenging animals and birds     visual     illegal dumping     traffic, truck queuing     noise	located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements along with proper management of the	Possible displacement of community features and business from the location of a new facility.  Potential for odour effects health and safety concerns and minor nuisance effects such as traffic,
·	- scavenging animals and birds - visual - visual - traffic, truck queuing - noise	use. The siting considerations for these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements along with proper management of the	community features and business from the location of a new facility  Potential for odour effects health and safety concerns and minor nuisance effects such as traffic,
	- visual - illegal dumping - traffic, truck queuing - noise	these types of facilities should address: odour, heavy truck traffic, truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements along with proper management of the	from the location of a new facility  Potential for odour effects health and safety concerns and minor nuisance effects such as traffic,
	- illegal dumping - traffic, truck queuing - noise	address: odour, heavy truck traffic, truck queuing, nuisance and litter. State-of-the-art odour control features should be design requirements along with proper management of the	<ul> <li>Potential for odour effects health and safety concerns and minor nuisance effects such as traffic,</li> </ul>
	<ul> <li>traffic, truck queuing</li> <li>noise</li> </ul>	truck queuing, nuisance and litter.  State-of-the-art odour control features should be design requirements along with proper management of the	and safety concerns and minor nuisance effects such as traffic,
- noise - child safety - property devaluation - stigma for neighbourhood - Health Concerns Odour effects from composting that receive mixed IC&I comp been significant enough to hav closed down (RIS, 1993; J. Soc Lannon, 1993). Odour effects wet stream of a Wet/Dry syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	- noise	<ul> <li>State-of-the-art odour control features should be design requirements along with proper management of the</li> </ul>	nuisance effects such as traffic,
- child safety - property devaluation - stigma for neighbourhood - Health Concerns Odour effects from composting that receive mixed IC&I comp been significant enough to hav closed down (RIS, 1993; J. Soc Lannon, 1993). Odour effects wet stream of a Wet/Dry syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility		should be design requirements along with proper management of the	
- property devaluation - stigma for neighbourhood - Health Concerns Odour effects from composting that receive mixed IC&I comp been significant enough to have closed down (RIS, 1993; J. Scc Lannon, 1993). Odour effects wet stream of a Wet/Dry syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	- child safety	with proper management of the	litter, visual, birds, vermin and
- stigma for neighbourhood  Health Concerns Odour effects from composting that receive mixed IC&I complete significant enough to have closed down (RIS, 1993, J. Scc Lannon, 1993). Odour effects wet stream of a Wet/Dry syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	- property devaluation		noise. These effects may be more
Health Concerns Odour effects from composting that receive mixed IC&I comp been significant enough to have closed down (RIS, 1993, J. Scc Lannon, 1993). Odour effects wet stream of a Wet(JDy syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	- stigma for neighbourhood	material and initiatives to reduce the	extensive in wet/dry than in leaf
Odour effects from composting that receive mixed IC&I complete significant enough to have closed down (RIs, 1993; J. Scc. Lannon, 1993). Odour effects wet stream of a Wet/Dry syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively. As management of the facility	Health Concerns	possibility of vectors and vermin.	and yard waste composting.
that receive mixed IC&I completen significant enough to have closed down (RIS, 1993, 1. Scolanton, 1993). Odour effects wet stream of a Wet/Dry systeprovince are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	Odour effects from composting facilities	People at community features and	
been significant enough to have closed down (RIS, 1993; J. Scc Lannon, 1993). Odour effects wet stream of a Wet/Dry system province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	that receive mixed IC&I compost have	business should be on the	
closed down (RIS, 1993, J. Sco Lannon, 1993, Odour effects wet stream of a Wet/Dry syste province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	been significant enough to have facilities	management/monitoring committees	
Lannon, 1993). Odour effects wet stream of a Wet/Dry syster province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	closed down (RIS, 1993; J. Scott, 1993;	(Lesnicki, 1993).	
wet stream of a Wet/Dry system province are relatively unknow Gelelph Pilot Wet/Dry Project small a scale to comparatively. As management of the facility	Lannon, 1993). Odour effects from the		
province are relatively unknow Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	wet stream of a Wet/Dry system in the		
Guelph Pilot Wet/Dry Project small a scale to comparatively As management of the facility	province are relatively unknown. The		
small a scale to comparatively As management of the facility	Guelph Pilot Wet/Dry Project was of too		
As management of the facility	small a scale to comparatively evaluate.		
	As management of the facility should		
comply with all operational	comply with all operational		-
requirements, the requirements	requirements, the requirements should		
be reviewed frequently due to	be reviewed frequently due to the		
limited experience in composti	limited experience in composting on a		
large scale with a wet/dry syste	large scale with a wet/dry system.		

Component Net Effects		. No effect
Mitigation/Enhancement		· Mitigation not required
Potential Effects	Research does not indicate an association between occupational health problems and composting because doseresponse issues are not resolved. (Mariato et al., 1992). However, health effects could be monitored for workers and the neighbouring community features and businesses over an initial period at the required facility (Taylor, 1993).  Wet/Dry systems can be highly contaminated unless a significant percentage of the population, very diligently source separates the waste. If there is very high contamination, it may lead to increased doour problems and the possibility of health concerns such as increased levels of pathogens and bacteria (e.g., diapers been tossed in with the west stream).  Possible displacement of community features and businesses from the location of a new facility.	Minor nuisance related effects on neighbouring features and businesses     Visual blight/image effect.
Component Category/Components	Composting Facilities (continued)  Central composting facilities (invessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste	Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
New MRF or improve/expand existing MRF's to process larger dry stream of recyclable	Potential nuisance effects:  - litter  - wisual  - traffic, truck queuing  - noise  - child safety  - property devaluation  - illegal dumping at centre  - odour (due to possibility of contamination of the dry stream)  - Possible displacement of community features and businesses from the siting of a new facility	Mitigation will need to encompass proper siting and management. Siting: MRFs should be sited in areas of compatible land use. The sting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queuing, litter, odour, and the possibility of excess storage (Lesnicki, 1993).  Management: The facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pest, and excess materials. Many of these effects could potentially be controlled by proper site design and planning (berms, fences, etc.).  Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRFs, storage will be required elsewhere.  People at Community features and businesses should be on a	Possible displacement of community features and businesses from the siting of a new facility. Potential for odour effects, health and safety concerns, and minor nuisance effects. These effects may be more extensive in a wet/dry system than with other facilities, because of potential for contamination.
		monitoring/management committee	

Component Category/Components	Potential Effects	Mitigation/Enhancement .	Component Net Effects
Residential Recycling Depots and			
Transfer Stations		· Mitigation will need to encompass	· Minor nuisance effects at some
Drop-off depot for dry recyclable	Nuisance related effects on nearby	proper siting and management.	facilities.
· Depots located at transfer	features and businesses;		:
stations/landfills	- litter	· Siting: Depots and transfer stations	· Possible displacement of
	- visual	should be sited in areas of compatible	community features and businesses
	- traffic, truck queuing	land use. These facilities are expected	from location of new facilities.
	- noise	to be significantly smaller in scale	
	- child safety	than Public MRFs. The siting	
	- property devaluation	considerations for these types of	
	- illegal dumping at centre	facilities will need to address; truck	2
		traffic, possibility of truck queuing,	
	· Possible displacement of community	noise litter and possibility of excess	
	features and businesses from location of	storage.	
	new facilities.	,	
		· Facility management will need to	
		control nuisance effects, and excess	
		materials. Many of these effects	
		could be controlled by proper site	
		design and planning (berms, fences,	
		etc.)	
•		Mitigation measures will need to be	
		developed on a system-wide basis for	
		the management of excess materials	
		as a result of over-supply of some	
		material markets. While these	
		materials may not be kept at the	
		depots/transfer stations, storage will	
		be required elsewhere.	
		· Odour effects can be best controlled	
	•	by having a low contamination rate.	

Communent Cateoory/Communents	Potential Effects	Mitigation/Enhancement	Component Net Effects
- 1			
Residential Promotion and Education			
Promotion/education program for	. No effect	· Mitigation not required	· · No effect
wet/dry system			
Promotion/education program for			
source reduction/pre-cycling, reuse			
and recycling			
· 3Rs promotion and education			
program			
· Consumer education program			



# TABLE H5.5 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

System: Residential Wet/Dry

CRITERION : Potential For Broad Social Impact Indicator: Potential for Lifestyle Change

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Streams Self haul of garbage Regional recycling legislation	Potential for a variety of minor lifestyle effects associated with the Wet/Dry bin system. Nuisance effects could include: associated with the ening the bins, insects, moving the bins in winter, and be greater in high density areas.	Mitigation could include a variety of measures. To control effects associated with waste sticking to bins, the bins could be lined with bags.  Optional smaller cans may be needed for the elderly and for those with a lack of space.	Potential for a variety of minor lifestyle inconveniences associated with bins.  Effects may be greater in high density areas.

Component Catègory/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	effects associated with the Wet/Dry bin system. Nuisance effects could include: oddour, waste sticking to bins, difficulties associated with cleaning the bins, inseets, moving the bins in winter, snowbanks, lack of space for 90 gallon bins, etc. (City of Guelph, 1991). The change from a traditional Blue Box system to Wet/Dry requires residents to significantly change their sorting and recycling behaviour. The Guelph experience tends to demonstrate a positive social and lifestyle effect, people are willing to do and learn more and it has become a source of personal and community pride.	Ensure weekly pick-up.  Ensure convenient drop-off locations for apartment dwellers and rural households.  Assistance in the development of 3Rs apartment committees, "Welcome Wagons," etc.  Ensure the provision of information and educational services for new residents (Environies, 1990). This must be a continual effort to address turnover and increase in densities.	Probably a positive social and lifestyle effect, people willing to do and learn more.      Variety of minor lifestyle inconveniences associated with bins.  The bins may be too large for some residents to manage during the winter.
Residential Leaf and Yard Waste Collection  Seasonal separate collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  Encourages positive local action.	· Mitigation not required	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.

Component Net Effects	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  Supports other 3Rs activities Variety of lifestyle inconveniences
Mitigation/Enhancement	Address complaints (e.g., ill-fitting lids, insufficient volume) of users. Provide kitchen containers, home delivery of composters, on-going subsidies (Environics 1990; Maclaren, 1990; Metropolitan Works Committee, 1992).  Encourage community compost challenges to promote and educate.  Ongoing education for proper use.
Potential Effect	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  Encourages positive local action and increases awareness in community.  Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, pests, lack of space, odours, scavenging animals).  Program may have substantial potential to increase waste diversion (MacLaren, 1990; Environics, 1990).  Potential for odour and vermin problems at composting facility.  Residents of apartment buildings may experience an increase in insects and rodents, odour and health concerns.
Component Category/Components	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and co- operative housing complexes Vermi-composting for multi-family households

. No effect

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre Private reuse centre  Charitable reuse centres Food reuse organization Special goods exchange days	In some instances, has social welfare benefits  May contribute to acceptance of using repaired/second hand items rather than buying new products  Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and encourage communal garage sales, fica markets, bazaars, etc.	Provide incentives for establishing:     reuse centres and for holding     "garage" sales.     Provide assistance in promoting     special goods exchange days	Positive effect may contribute to acceptance of using repaired/second hand items rather than buying new products.     In some instances, has social welfare benefits     Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness: through communal garage sales, flea markets, bazaars, etc.
Public MRFs  New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	· No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	. No effect	· Mitigation not required	· No effect

Component Category/Components	Potential Effect	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program	One of the criticisms of the Wet/Dry System, is that it does not force people to actively think about recycling, reusing or reducing their waste. Promotion of the system may or may not encourage 3Rs thinking and a change in lifestyle. If positive effects are to be achieved, extensive efforts into developing wet/dry promotional/cducational programs will be needed.	Development of a variety of educational and promotional tools for 3Rs education.     Evaluate Guelph's Wet/Dry Education and Promotion Programs to identify key educational elements.	Potential positive effect: encourages people to participate and understand the system.

### TABLE H5.6 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
System: Residential Wet/Dry
CRITERION: Potential For Broad Social Impact Indicator: Potential Effects on Employment

		nd As
Component Net Effects	· No cffect	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in wet/dry collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effects are uncertain. As recycling becomes more centralized, the recycling industries may become more specialized and centralized. I'mployment opportunities may occur only at one location in the GTA or elsewhere in North America.
Mitigatlon/Enhancement	· Mitigation not required	A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy.
Potential Effects	. No effect	Direct employment gains, primarily in low skill jobs, are likely in recycling industries and in wet/dry collection. Indirect effects could include both short and long-term changes in secondary and tertiary employment. Magnitude, timing and direction of effects are uncertain.  As recycling becomes more centralized, the recycling industries may become more specialized and centralized. Employment opportunities may occur only at one location in the GTA or elsewhere in
Component Category/Components	Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation	Residential Recycling and Collection  Provide carts to all single family households Sparation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection  Seasonal separate collection of leaf and yard waste  Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment.	A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of compositers and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment. Mitigation should enhance benefits.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Special HHW drop-off depot for HHW Mobile HHW drop-off days Toxic Taxi service Mobile HHW depots	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	A transition to conserver attitudes has major implications for the economy and employees. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and retraining will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.
Composting Facilities  Central composting facilities (invessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste	Direct employment gains, primarily in low skill jobs, are likely at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.	· Mitigation not required	Minor increase in low skill jobs.     Minor short-term increase in construction sector employment.     Long term effects uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities	-		
Municipal reuse centre     Private reuse centre     Non-profit reuse centre     Charitable reuse centres     Food reuse organization     Special goods exchange days	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Mitigation not required	Minor increase in low skill jobs     Long term effects uncertain
Public MRFs			
New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	Direct employment gains, primarily in low skill jobs, are likely at the MRFs and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.	Mitigation not required	Short term increase in low skill jobs  Minor short-term increase in construction sector employment.  Long term effects uncertain
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Direct employment gains, primarily in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.	· Mitigation not required	Minor short term increase in low skill jobs.     Minor short-term increase in construction sector employment.     Long term effects uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program for wet/dry system	<ul> <li>Direct employment gains, primarily in low skill jobs, are likely in</li> </ul>	A transition to conserver attitudes has major implications for the economy     Long term effects uncertain.	Minor short term employment gains.     Long term effects uncertain.
Promotion/education program for source reduction/pre-cycling, reuse	printing, production and distribution. Indirect effects could include both	and employces. Mitigation is likely to occur as the economy readjusts to	ò
and recycling  38s promotion and education	short and long term changes in	3Rs management. There should be a	
program	Magnitude, timing and direction of	business and labour to facilitate this	
· Consumer education program	effects is uncertain.	change in attitude. Education and retraining will be key components to	
		help the working population adapt to new and evolving sectors in the	
		"green" economy.	



### GENERIC COMPONENTS NET EFFECTS TABLE H5.7

MUNICIPALITY: GTA CRITERION: Potent

': GTA System : Residential Wet/Dry: Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams  Collection of residential garbage from multi-family units in three streams  Self haul of garbage  Regional recycling legislation	· No effect	Mitigation not required	· No effect
Residential Recycling and Collection  Provide carts to all single family households  Separation of waste into three streams  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	Direct economic benefits are likely in recycling industries, and in wet/dry collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (eg. Roundrables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	Direct economic benefits are likely in recycling industries, and in wet/dry collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncortain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation should enhance benefits.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Seasonal separate collection of leaf and No effect yard waste     Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	· No effect
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family households     Large 3-bin composting units distributed to apartment and cooperative housing complexes     Vermi-composting for multi-family households	likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfil fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (although the industries could locate elsewhere in North America).	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (eg. Roundrables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a recuction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.
		and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	ikely in recycling industries, and in collection. Indirect economic effects could include both short and longteriary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (although the industries could locate elsewhere in North America).	manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and the Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally	Minor direct economic benefits are likely in recycling industries, and in collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.
		alle illetillationality.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities			
Central composting facilities (in-vessel or windrow) for composting of source	Direct economic benefits are likely at composting facilities. Indirect	The economic base is shifting from manufacturing to a more service	Direct economic benefits are likely at composting facilities. Indirect
separated household organic (wet stream)	economic effects could include both short and long-term changes in	orientation. Along with this trend is the movement towards a "green"	economic effects could include both short and long-term changes
Centralized windrow composting of leaf     and yard waste	secondary and tertiary sectors.  Magnitude, timing and direction of	economy. This transition is being made by various companies and	in secondary and tertiary sectors. Magnitude, timing and direction of
	effects is uncertain. Over the long- term, this initiative could lead to the	sectors. However, the long-term competitiveness of the region may be	effects is uncertain. Over the long-term, this initiative could lead
	development of marketable "green" systems, technologies, and products	dependent on the others making the transition as well. Government,	to the development of marketable "green" systems, technologies, and
	in the GTA (Mercer, 1993).  Provides a minor economic benefit	business and environmental interests	products in the GTA (Mercer,
	in the construction sector.	facilitate this transition (eg.	· Provides a minor economic benefit
		Roundtables on the Economy and the	in the construction sector.
		Environment), and grasp the	
		systems and technologies nationally	
Reuse Centres and Activities		and inclinationally.	
· Municipal reuse centre · Private reuse centre	Minor direct economic benefits are likely at these centres. Indirect	. Mitigation not required	<ul> <li>Minor direct economic benefits are likely at these centres.</li> </ul>
Non-profit reuse centre     Charitable reuse centres     Food reuse organization	economic effects could include both short and long-term changes in secondary and tertiary sectors. For		Indirect economic effects could include both short and long-term changes in secondary and terriary
· Special goods exchange days	example, decreased demand for new products. Over the long-term, this		sectors.
	initiative could lead to a viable purchasing option for certain SES groups in the GTA.	•	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	Provides the infrastructural support for recycling materials by the private and public sector.     Provides a minor economic benefit	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green"	Indirect effect on economic development by providing the infrastructure required for recycling by the private and public
-	in the construction sector.	economy. This transition is being made by various companies and sectors. However, the long-term	sectors.  Provides a minor short term economic benefit in the
		dependent on the others making the transition as well. Government,	
		business and environmental interests should work in partnership to facilitate this transition (eg.	
		Koundtables on the Economy and the Environment), and grasp the opportunities for marketing "green"	
		systems and technologies nationally and internationally.	
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Provides the infrastructural support for recycling materials by the private and public sector.     Provides a minor economic benefit	· Mitigation not required	Indirect effect on economic development by providing the infrastructure required for recycling by the private and public
	III IIIe CODSILUCION SCOOL.		Provides a minor short term economic benefit in the construction sector.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program	Minor direct economic benefits are likely in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	· Mitigation not required	Minor direct economic benefits are likely in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

#### BSI.OPE

# GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: GTA : System : Residential Wet/Dry : Potential For Broad Social Impact Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industry

the state of the s	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Curbside Collection of residential garbage from single family dwellings in three streams	All landlords may be required to provide space, facilities, and staff time to accommodate the Wet/Dry System.	Province to consider amending annual rent review applications to reflect potentially increased costs to	Potential increased costs for tenants     Effects uncertain with material
Collection of residential garbage from multi-family units in three streams     Self haul of garbage     Regional recycling legislation	They may incur additional costs.  Effects uncertain with recycling legislation.	landlords.	banning legislation
Residential Recycling and Collection			
Provide carts to all single family households Separation of waste into three streams	All landlords may be required to provide space, facilities, and staff time to accommodate the Wet/Dry System.	Landlords to include additional costs for recycling in annual rent review application.	<ul> <li>Potential increased costs for tenants and landlords.</li> </ul>
Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	They may also incur additional costs.	:	
Residential Leaf and Yard Waste Collection			
Seasonal separate collection of leaf and yard waste  Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Landlords may be required to provide space and equipment for composters and may experience increased costs associate with insect and rodent control, staff, etc.	Province to consider additional costs for recycling in annual rent review application.	<ul> <li>Potential increase in costs for tenants and landlords</li> </ul>
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depois for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products)  Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may start looking for, and there may be a growing market for, products which are smaller and more durable.  Small businesses may benefit from use of the mobile HHW depots.	Retails stores could develop buy-back programs for large and bulky items. The consumer would then not be required to disperse items. Allow small businesses to use mobile HHW at cost.	In the long-term institutions and commercial enterprises may develop programs to "buy back" used white goods.     Increased diversion of hazardous waste from small business.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste	. No effect	· Mitigation not required	. No effect
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	· No effect	Mitigation not required	· No effect
Public MRFs  New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	· No effect	. Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	. No effect	· Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· Promotion/education program for	. No effect	· Mitigation not required	· No effect
wet/dry system · Promotion/education program for			
source reduction/pre-cycling, reuse			
and recycling			
· 3Rs promotion and education			
program			
· Consumer education program			

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### GENERIC COMPONENTS NET EFFECTS TABLE H5.9

MUNICIPALITY: GTA

CRITERION

: Distribution of Social Costs and Benefits

System: Residential Wet/Dry Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams  Collection of residential garbage from multi-family units in three streams  Self haul of garbage  Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Provide carts to all single family households  Separation of waste into three streams  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	. No effect	· Mitigation not required	. No effect
Residential Leaf and Yard Waste Collection Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	Mitigation not required	· No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	No effect	Mitigation not required	No effect
Other Residential Waste Diversion (HIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Residents of some municipalities are provided with white goods and HHW collection, while others are not.	Mitigation not required	Minor effect in different level of service for white goods and HHW collection in some municipalities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste	<ul> <li>Local residents and businesses may receive nuisance effects related to composting for all region residents.</li> </ul>	Site the composting facility in a non-residential area and away from sensitive industry and committed uses. Develop appropriate mitigation/compensation for site related impacts.  Address equity issue aspect of the siting process.	Negative distribution effects on some local communities, population groups, and industries.
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.	· Mitigation not required	Positive effect for fower income groups as more low cost items available and adds potential market for their goods.
Public MRFs  New MRF or improve/expand existing MRF to process larger dry stream of recyclable	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>	Mitigation as "Potential Effects on Residents"	Potential negative distribution effects on some groups living near facility
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Potential negative distribution effects on some groups living near facility	· Mitigation as "Potential Effects on Residents"	<ul> <li>Potential negative distribution effects on some groups living near facility</li> </ul>

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· Promotion/education program for	· No effect	· Mitigation not required	· No effect
wet/dry system  • Promotion/education program for			
source reduction/pre-cycling, reuse			
and recycling  3Rs promotion and education			-
program			
· Consumer education program			

# TABLE H5.10 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION

: Distribution of Social Costs and Benefits Indicate

System: Residential Wet/Dry Indicator: Distribution of Lifestyle Effects

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection  - Curbside Collection of residential garbage from single family dwellings in three streams  - Collection of residential garbage from multi-family units in three streams  - Self haul of garbage  - Regional recycling legislation	Potential for minor difference in lifestyle effects between high density and low density developments.	· Mitigation not required	Potential for minor difference in lifestyle effects between high density and low density developments.
Residential Recycling and Collection  Provide carts to all single family households  Separation of waste into three streams  Drop-off depot for multi-family residents not serviced by recycling not serviced by recycling.  Drop-off depot for rural households	Potential for minor difference in lifestyle effects between high density and low density developments.	· Mitigation not required	Potential for minor difference in lifestyle effects between high density and low density developments.
Residential Leaf and Yard Waste Composting  Seasonal separate collection of leaf and yard waste  Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and co-operative housing complexes  Vermi-composting for multi-family households	· Equitable distribution of services	· Mitigation not required	· Equitable distribution of services
Other Residential Waste Diversion (IHIW, Toxic Taxi, White Goods, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	No effect	Mitigation not required	. No effect
Composting Facilities  Central composting facilities (in-vessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste	. No effect	. Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	. No effect	· Mitigation not required	. No effect
Public MRFs  New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	. No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	· No effect	. Mitigation not required	. No effect
Residential Promotion and Education  Promotion/education program for wet/dry system  Promotion/education program for source reduction/pre-cycling, reuse and recycling. 3Rs promotion and education program  Consumer education program	· No effect	· Mitigation not required	· No effect



# TABLE H5.11 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA CRITERION : Distril

: Distribution of Social Costs and Benefits |

System: Residential Wet/Dry
s Indicator: Potential Future Generational Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings in three streams Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	Potentially positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.	Continue to promote and educate on 3Rs (Hay, ND: Lesnicki, 1993; Morgan-Fraser, 1993; Watson, 1993). The likely overall benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that an entire generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren.	Potentially positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
Residential Leaf and Yard Waste Collection Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste	Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household (e.g., much leaves, grass and branches).	Evaluate the best approach to management of leaf and yard waste. Address residential on-site mulching, chipping, and composting. Could reduce the need for collection costs and cost for large, centralized facilities in the long term and may pass on to future generations a better process (less facility management/decommissioning cost).	Costly to start-up and establish but may have environmental benefits in the long run. May be better to have the yard waste composted at the household (e.g., much leaves, grass and branches).	
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Moderately costly to start-up and establish but environmentally beneficial to future generations due to a support for a change in behaviour to reduction and reuse.	Promotion and education should increase future participation rate (Environics, 1990).	Positive effect of passing on a healthier environment with resources more available, through support for change in behaviour to reduction and reuse.	

	ıre re		re e	=
	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future with cleaner environment and more resources available.		Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future with cleaner environment and more resources available.	Positive effects in changing current attitudes and behaviour to a more sustainable society, which should leave future with cleaner environment and more resources available.
ts	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave fu with cleaner environment and m resources available.		Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave fu with cleaner environment and m resources available.	Positive effects in changing curre attitudes and behaviour to a mor sustainable society, which should leave future with cleaner environment and more resources available.
et Effec	ect as the more set more set available		is payin more s which sl r envirc	d behav society, with c
Component Net Effects	Positive effect as the generation is paying schanging to more schaviour, which she with cleaner environresources available.		Positive effect as the generation is paying changing to more substanciour, which she with cleaner environ resources available.	Positive effects in changir attitudes and behaviour to sustainable society, which leave future with cleaner environment and more re available.
Compo	Posi gene char behar with reso		· Posi gene char beha with	· Posi attit sust: leav envi avai
				hasize on of
	_			Education material could emphasize the benefits to future generation of 3Rs actions today.
cement	requirec		requirec	rrial cou future g lay.
/Enhan	on not		on not	Education materize the benefits to fut 3Rs actions today.
Mitigation/Enhancement	Mitigation not required		Mitigation not required	Educati the ben 3Rs act
M			• •	
	Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run.  Current generation paying the cost for altering behaviour to a more sustainable society.		Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society.	s in and inable future ources
	Costly to start-up and establish because of market development, environmentally and possibly economically beneficial in the lot run.  Current generation paying the cc for altering behaviour to a more sustainable society.		Costly to start-up and establish because of market developmen environmentally and possibly economically beneficial in the Irun. Current generation paying cost for altering behaviour to a sustainable society.	Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available.
ts	irt-up au market (aulty and aulty and y benefity behavion behavion occiety.		rrt-up ar narket o ally and y benefit t gener- ring bet	positive rrent att o a moi h should with cle
Potential Effects	Costly to start-up a because of market environmentally an economically benefined. Current generation for altering behavior sustainable society.		Costly to start-up of because of market environmentally are economically benefun. Current gene cost for altering be sustainable society	Should have positive effochanging current attitude behaviours to a more sus society which should leave generations with cleaner environment and more revailable.
Potenti	· Costl beca envir econ run. · Curr for a		Costl becar envir econ run. cost	Shou chan beha socie gene envir
	isting m of			e e
onents	nblic MRFs New MRF or improve/expand existing MRFs to process larger dry stream of recyclable	s and	Drop-off depot for dry recyclable Depots located at transfer stations/landfills	Residential Promotion and Education Promotion/education program for wet/dry system Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program
Component Category/Components	arger d	Depots and	Drop-off depot for dry rec Depots located at transfer stations/landfills	sidential Promotion and Educ Promotion/education program wet/dry system Promotion/education program source reduction/pre-cycling, rand recycling, and recycling 3Rs promotion and education
ategory	or imp	ecycling ions	epot for	romotic educati tem educati oction/p ng tion and
onent C	Public MRFs  New MRF to pr recyclable	Residential Recycling Transfer Stations	Drop-off depot Depots located stations/landfills	Promotion/education wet/dry system Promotion/education source reduction/pream recycling ARS promotion and e
Сотр	Public New MR recy	Reside	· Dro stati	Reside Proi wet/ Proi sour sour and 3Rs





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# TABLE H6.1 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

CRITERION : Potential Local Community Impacts

System: Residential Mixed Waste Processing Indicator: Potential Effects on Residents

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation Drop-off depot for rural households	· No effect	. Mitigation not required	No effect
Residential Recycling and Collection Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Drop-off depot for rural households	· No effect	. Mitigation not required	. No effect
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family households	. No effect	· Mitigation not required	. No effect
· Large 3-bin composting units distributed to apartment and co-	3		
operative housing complexes  Vermi-composting for multi-family households			
O. A. C. D. C. L. D. C. L. D. C.			
CHIRV. Toxic Taxis, Pilot Wet/Dry, White			-
etc.)		_	
Special curbside collections of	. No effect	· Mitigation not required	· No effect
· Special and weekly curbside collections			
of white goods  Drop-off denots for white goods			
· Special curbside collection for bulky			
Permanent drop-off depot for HHW			
· Special HHW drop-off days			
· Toxic Taxi service · Mobile HHW depots			

Component Net Effects	Possible displacement of residents for the location of a new facility. Potential for significant odour effect from Mixed Waste Processing and Composting facility. Virtually all plants in the US have significant odour problems that have led to their permanent or temporary closure. May be difficult to site. Mitigation measures may have only a limited effect.
Mitigation/Enhancement	Existing facilities: Proper management of the material must be maintained in reducing odour and scavenging animal problems.  MOEE proposed regulations (MOEE, 1993) do not appear to mitigate all of the documented effects.  Composting sites should be located in areas of compatible land use. The siting considerations for these types of facilities should address: odour, heavy truck traffe, truck queuing nuisance and litter.  State-of-the-art odour control features should be design requirements. Local residents should be on the management/monitoring committees (Lesnick, 1993).  As management of the facility should comply with all operational requirements, the requirements should be reviewed frequently due to the limited experience in composting on a large scale.  Research does not indicate an association between occupational health problems and composting because dose-response issues are not resolved. (Maritato et al., 1992). However, health effects could be monitored for workers and the neighbouring residents over an initial period at the required facility (Taylor, 1993).
Potential Effects	Potential nuisance effects:  - odour  - scavenging animals and birds  - visual  - illegal dumping  - traffic, truck queuing  - noise  - child safety  - property devaluation  - stigma for neighbourhood  - Health concerns  - Potential odour effects have been significant enough to have leaf and yard waste composting facilities closed (R1S, 1993, J. Scott, 1993).  These effects may be much more extensive with a mixed waste system.  - Possible displacement of residents for the location of a new facility.
Component Category/Components	Composting Facilities  Centralized windrow composting of leaf and yard waste composting of source separated organics New mixed waste processing and composting facility

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities (continued)		·	
Centralized windrow composting of leaf and yard waste     In-vessel composting of source separated organics     New mixed waste processing and		Some effects likely to be mitigated over time due to greater familiarity with effects and mitigation (e.g. improvements to sting design, operations and technology).	
composing racing			
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre	raffic concerns visual effect of large bins in plazas	Locate Reuse Centres in areas of compatible land use.	. No effect
Charitable reuse centres     Food reuse organization     Special goods exchange days			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	Potential nuisance effects:  litter  visual  raffic, truck queuing  noise  children safety  property devaluation  lifegal dumping at centre  Possible displacement of residents from the siting of a new facility.	Mitigation will need to encompass proper sting and management. Siting: MRF's should be sited in areas of compatible land use. The siting considerations for these types of facilities will need to address: heavy truck traffic, noise, visibility, truck queving, litter, and the possibility of excess storage (Lesnicki, 1993). Management: The Facility will need to be managed in such a way as to control dust, litter, odour, rodents and other pests, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.) Mitigation measures will need to be developed on a system-wide basis for the management of excess materials as a result of over-supply of some material markets. While these materials may not be kept at the MRF's, storage will be required elsewhere.	residents from the siting of a new facility.  Nuisance effects from traffic litter and noise. Magnitude of effects may be minimized by proper siting considerations of new facilities and proper management.
		monitoring/ management committee.	

Residential Recycling Depots and Transfer Stations  Depois located at transfer stations Transfer Stations  Depois located at transfer stations Transfer Stations  Tra	Mitigation will need to encompass proper siting and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The stiling considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.  Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)	Potential minor nuisance effects at some facilities facilities
Potential nuisance effects:  itter  visual  traffe, truck queuing  noise  child safety  property devaluation  illegal dumping at centre  Possible displacement for new facilities	cts:  Minigation will need to encompass proper sting and management. Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The sting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.  Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)	otential minor nuisance effects some facilities ossible displacement for new cilities
- visual - traffic, truck queuing - noise - child safety - property devaluation - illegal dumping at centre - Possible displacement for new facilities	Siting: Depots and transfer stations should be sited in areas of compatible land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The sting considerations for these types of facilities will need to address: truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.  Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)	osible displacement for new cilities
- noise - child safety - property devaluation - illegal dumping at centre - Possible displacement for new facilities	land use. These facilities are expected to be significantly smaller in scale than Public MRFs. The siting considerations for these types of facilities will need to address; truck traffic, possibility of truck queuing, noise, visibility, litter, and possibility of excess storage.  Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)	
- child salety - property devaluation - illegal dumping at centre - Possible displacement for new facilities	-	
- illegal dumping at centre - Possible displacement for new facilities		
Possible displacement for new facilities	-	
facilities	÷	
	Management: The Facility will need to be control nuisance effects, and excess materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)	
	materials. Many of these effects could be controlled by proper site design and planning (berms, fences, etc.)	
	be controlled by proper site design and planning (berms, fences, etc.)	
	planning (berms, tences, etc.)	
	Mitigation measures will need to be	
	developed on a system-wide basis for	w
	the management of excess materials as	
	a result of over-supply of some material	
	be kept at the depots/transfer stations,	
Residential Promotion and Education	storage will be required elsewhere.	
· No effect	Mitigation not required · No effect	o effect
source reduction/pre-cycling, reuse and		
3Rs promotion and education program     Consumer education program		

### TABLE H6.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential

: Potential Local Community Impacts

System: Residential Mixed Waste Processing Indicator: Potential Effects on Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitlgation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households Residential Recycling and Collection Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling depot Drop-off depot for rural households	No effect  Elderly/physically challenged may have difficulty carrying/lifting blue box or dropping off at depots.	Mitigation not required  Provide maximum convenienee possible.	No effect Greater inconvenience for elderly and physically challenged.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection  • Curbside collection of leaf and yard waste  • Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and co-operative housing complexes  Vermi-composting for multi-family households	No effect	· Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet(Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	. Possible occupational safety concerns with drivers and handlers of HHW.	HHW education for driver/handlers	Minor possible occupational safety concerns with drivers and handlers of HHW

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  New mixed waste processing and composting centre	Although the research (Curtis et al., 1991) indicates that properly managed compositing produces a safe product, there are: Possible important health effects on allergy sufferers, people with respiratory ailments, people with immuno-deficiencies because of mixed waste processing facility. Possible employee health concerns (Taylor, 1993) associated with mixed waste processing.	Since the destruction of pathogens in compost is directly proportional to the temperature increases achieved in the piles (Curlis et al., 1991), appropriate operational procedures should be instituted to maximize this destruction.  Prudence dictates that employees should practise proper hygiene and wear protective clothing.  Health effects monitoring for employees and bigh-risk residents should be an operational condition.	Potential for significant nuisance and health effect from mixed waste processing and composting facility on allergy sufferers, people with immuno deficiencies, etc. Potential for health effects on allergy sufferers, people with immuno deficiencies, etc. from composting.  Employees at MWPC and compost facilities may be subjected to a variety of health and safety hazards. Possibility of significant effects on employees at MWPC facility.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Food contamination issue and liability concerns of donors (Wrigley, 1993).     Positive effect for low-income and disabled groups     Possible transfer of pests in reuse centers, exchange days	Train food distribution groups in potential contamination/spollage. Province to consider "Good Samaritan" Legislation to absolve donor of responsibility. Cleaning and fumigation of materials.	· No effect
Public MRFs  Processing centre for dry recyclables	· Possible employee health/safety concerns	Educate/train employees on health and safety hazards and precautions.	Possible employee health/safety concerns. Should be minimized by mitigation.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations			
<ul> <li>Drop-off depot for dry recyclables</li> <li>Depots located at transfer stations</li> </ul>	Possible employee health/safety concerns	Educate/train employees on health     No effect and safety hazards and precautions.	. No effect
Residential Promotion and Education  Promotion/education program for source reduction/pre-cycling, reuse and recycling.  Rs promotion and education program	· No effect	· Mitigation not required	No effect

# TABLE H6.3 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Potential Lo

: Potential Local Community Impacts

System: Residential Mixed Waste Processing Indicator: Potential Effects on Community

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	. No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Minor traffic inconvenience in communities where materials arc sorted at the truck  Possible increase in community pride	· Mitigation not required	Minor traffic inconvenience in communities where materials are sorted at the truck Possible increase in community pride

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	. No effect	Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxis service Mobile HHW depots	Failure of programs tends to have a negative effect on community image. For example, couches, mattresses in vacant lots.	Develop incentives for people to donate useful large items, repair/reuse items or properly dispose of them.     Assistance in organization of community garage sales, flea markets etc.     Enforcement for illegal dumping	Minor negative community stigma effect on community image from illegal dumping

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste Invessel composting of source separated organics New mixed waste processing and composting facility	Possible stigma effect in some communities	State-of-the-art odour control should be an operational condition	Possible stigma effect in some communities
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charlable reuse centres  Food reuse organization  Special goods exchange days	· Possible stigma effect in some communities	• Location of the reuse centres in suitable land use area	. No effect
Public MRFs  Processing centre for dry recyclables	Possible stigma effect in some communities	Mitigation not required	<ul> <li>Possible stigma effect and disruption in some communities. Magnitude of effect dependant on site location and management of the facility.</li> </ul>
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations	. No effect	. Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	Possible increase in community pride     Mitigation not required	· Mitigation not required	• Possible increase in community pride

### GENERIC COMPONENTS NET EFFECTS TABLE H6.4

MUNICIPALITY: GTA CRITERION

: Potential Local Community Impacts

System : Residential Mixed Waste Processing Indicator: Potential Effects on Community Features and Businesses

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	Possible nuisance effects on community features and businesses from traffic and hauling.	· Mitigation not required	Possible minor nuisance effects on community features and businesses from traffic and hauling.
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than units Blue Box recycling depot Brigineered recycling depot Drop-off depot for rural households	Possible nuisance effects on community features and businesses from traffic and hauling.	Planning and co-ordination of haulage system to minimally disrupt local community features and businesses.	Possible minor nuisance effects on community features and businesses from traffic and hauling.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  • Door-to-door distribution of backyard composters to 80% of single family households  • Large 3-bin composting units distributed to apartment and cooperative housing complexes  • Vermi-composting for multi-family households	. No effect	· Mitigation not required	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.) Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service	No effect	Mitigation not required	No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities	,		
Centralized windrow composting of leaf and yard waste	- Potential nuisance effects:	Existing facilities: Proper management of the material must be maintained in	effect from Mixed Waste
In-vessel composting of source separated organics	<ul> <li>scavenging animals and birds</li> <li>visual</li> </ul>	reducing odour and scavenging animal problems.	Processing and Composting facility. Virtually all plants in the
· New mixed waste processing and	- illegal dumping	MOEE proposed regulations (MOEE,	US have significant odour
composting facility	- traffic, truck queuing - noise	1993) do not appear to mitigate all of the documented effects.	problems that have led to their permanent or temporary closure.
	- child safety	· Composting sites should be located in	May be difficult to site.
	- property devaluation	areas of compatible land use. The siting	Mitigation measures may have
	- Stigma	considerations for these types of facilities	only a limited effect.
	Traditi concerns	truck agening, noise and litter.	community features and
	· Potential odour effects have been	State-of-the-art odour control features	businesses due to new facility
	significant enough to have leaf and	should be design requirements. People	location.
	yard waste composting facilities	who work at local businesses should be on	
	Closed (KIS, 1993; J. Scott, 1993). These effects may be much more	the management/monitoring committees	
	significant in a mixed waste system	(100)	
	· Possible displacement of		
	businesses and community features from the siting of new facility.		
Reuse Centres and Activities			
· Municipal reuse centre	· Minor nuisance related effects on	· Mitigation not required	. No effect
Private reuse centre	neighbouring features and	•	
Non-profit reuse centre	businesses		
Charitable reuse centres	· Visual blight/image effect		
· Food reuse Organization			
Special goods excitating days			

		traffic ude of	ed by	tions of			Jc.	Jd	ng of a																				1
Component Net Effects		Nuisance effects from traffic litter and noise. Magnitude of	effects may be minimized by	proper siting considerations of	new facilities and proper	gemem.	Possible displacement of	community features and	businesses from the siting of a	new ideility.																			
Сотроп		· Nuisa litter	effect	prope	mew I	finana	· Possit	соши	busin	I MOII																			
Mitigation/Enhancement .		Mitigation will need to encompass proper siting and management.	· Siting: MRF's should be sited in areas of	compatible land use. The siting	considerations for these types of facilities	noise, visibility, truck queuing, litter, and	the possibility of excess storage (Lesnicki,	1993).		inter secure redente and other pasts and	excess materials. Many of these effects	could be controlled by proper site design	and planning (berms, fences, etc.).	· Mitigation measures will need to be	developed on a system-wide basis for the	management of excess materials as a	result of over-supply of some material	be kent at the MRFs storage will be	required elsewhere.	· People who work in local business should	be on a monitoring/ management	committee.	Establish a consultant program with	business and reature operations near the	committee.	Some effects likely to be mitigated over	time due to greater familiarity with affects	and mitigation (e.g. improvements to siting design operations and technology).	
Potential Effects		<ul> <li>Potential nuisance effects:</li> <li>litter</li> </ul>	- visual	- traffic, truck queuing	- noise	- child salety	- illegal dumping at centre		· Possible displacement of	community features and businesses	iron string of a new facility.																		
omponents		dry recyclables																											
Component Category/Components	Public MRFs	· Processing centre for dry recyclables																										-	

## TABLE H6.5 GENERIC COMPONENTS NET EFFECTS

: GTA System : Residential Mixed Waste Processing : Potential For Broad Social Impact Indicator: Potential for Lifestyle Changes MUNICIPALITY: GTA CRITERION: Potent

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self hauf of garbage  Regional recycling legislation  Drop-off depot for rural households	·· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling about Engineered recycling depot Drop-off depot for rural households	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. However, the mixed waste processing component may have a negative effect because some people may not perceive a need for source separation. It may lead to counterproductive attitudes.  Bins may attract nuisances if not picked up offen.	of point for apartment dwellers. Assistance in the development of 3Rs apartment committees, "Welcome Wagons", etc. Ensure the provision of information and educational services for new residents (Environes, 1990). This must be a continual effort to address turnover and increase in future densities.  Ensure regular pick-up.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride. However, the mixed waste processing component may have a negative effect because some people may not perceive a need for source separation. It may lead to counter-productive attitudes.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.     Encourages positive local action.	Mitigation not required	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family households     Large 3-bin composting units distributed to apartment and cooperative housing complexes     Vermi-composting for multi-family households	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.  Encourages positive local action.  Inconvenience and annoyance for a minority of people: (e.g., ill-fitting lids, insufficient volumes, lack of space, odours, pests, scavenging animals).  Program may have substantial potential to increase waste diversion (MacLaren, 1990; Environies, 1990).  Promotion of vermicomposting in apartments should increase awareness of role of apartment residents in 3Rs. and should lead to greater support for and involvement in 3Rs.  Potential for odour and vermin problems at community composting facility.  Residents of apartment buildings may experience an increase in insects and rodents, odour and health concerns.	Address complaints (e.g., ill-fitting lids, insufficient volume) of users.  Provide kitchen containers, home delivery of compositers, on-going subsidies (Environics, 1990; Maclaren, 1990; Marchard, 1990; Maclaren, 1990; Marchard, 1990; Marchard, 1990; Marchard, 1990; Marchard, 1992;  Target apartments with action Promotion/Education programs and consultation program to maximize participation - modify compositing program/components as required.  On-going education for proper use.	Positive social and lifestyle effect, people willing to do and learn more, source of personal and community pride.     Supports other 3Rs activities.     Variety of lifestyle inconveniences.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Special HHW drop-off depot for IHHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	White goods disposal appears to be increasingly inconvenient and difficult; this has resulted in illegal dumping.     Consumers may become much more concerned about size and durability of appliances and furniture.      Residents may become more aware of IHHW and white goods management and change purchasing attitudes.	Improved service for white goods and large items.  Develop special waste days and special depots for multi-family building collection.  Make collection drop-off point convenient for all households and/or continue toxic taxi.  Develop promotional/educational materials to emphasize alternatives to HHW for pest control, lawn & garden, cleaning agents, and paint and solvents. Encourage the use of 3Rs for HHW and the separation of HHW from garbage (Manitoba Hazardous Waste Management Corporation, 1992).	. Residents may become more aware of HHW and white goods management and change purchasing attitudes.
Composting Facilities			
Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility	. No effect	· Mitigation not required	·. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	In some instances, has social welfare benefits.  May contribute to acceptance of using repaired/second hand items rather than buying new products.  Increased appeal and household economic benefits with future demographic changes. Can contribute to neighbourhood cohesiveness: and provide communal garage sales, flea markets, bazaars, etc.	. Provide incentives for establishing reuse centres and for holding "garage" sales.	Positive effect may contribute to receptance of using repaired/second hand items rather than buying new products     In some instances, has social welfare benefits.     Increased appeal and household economic benefits with future demographic changes. May contribute to neighbourhood cohesiveness: through communal garage sales, flea markets, bazaars, etc.
Public MRFs  Processing centre for dry recyclables	. No effect	Mitigation not required	· No effect
Residential Recycling Depots and Transfer Stations Drop-off depot for dry recyclables Depots located at transfer stations	. No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· Promotion/education program for	Potentially encourages positive changes	· Expand and refine	· Potentially positive effect;
source reduction/pre-cycling, reuse and	to conserver and waste diversion	promotion/education programs to	encourages positive changes to
recycling	attitudes; emphasizing reduction and	target non-participating groups and	conserver and waste diversion
· 3Rs promotion and education program	reuse, as well as recycling, could lead	to allow for changes in	attitudes; emphasizing reduction
· Consumer education program	to lifestyle change.	demographic make-up of GTA	and reuse, as well as recycling,
	Could increase demand for packaging	(Environics, 1990; Morgan-Fraser,	could lead to lifestyle change.
	reduction (Environics, 1990).	1993).	
		<ul> <li>Promotional/Educational programs</li> </ul>	
		should be based on successful	
		programs (e.g., Folz & Hazlett,	
		1990). For example, pamphlets and	
		brochures (in utility bills, etc.) and	
		community information meetings.	
		<ul> <li>The role of the schools could be</li> </ul>	
		important, particularly for new	
		Canadians whose children are	
		receiving the only English	
		instruction in the family. Many	
		School Boards have environmental	
		education committees and the	
		schools are increasingly being led	
		by Principals & V.P.'s eager to	
		spread an environmental message.	

## TABLE H6.6 GENERIC COMPONENTS NET EFFECTS

System : Residential Mixed Waste Processing : Potential For Broad Social Impact Indicator: Potential Effects on Employment MUNICIPALITY: GTA CRITERION: Potent

4		A. C	Comment of the second of the s
Component Category/Components	Potential Effects	Minganon/Ennancement	Component Net Enects
Garbage Collection and Disposal			
Curbside Collection of residential garbage from single family dwellings	· No effect	· Mitigation not required	· No effect
Collection of residential garbage from multi-family units			
Self haul of garbage Regional recycling fegislation			
· Drop-off depot for rural households			
Residential Recycling and Collection			
· Curbside collection of Blue Box	· Direct employment gains, primarily in	· A transition to conserver attitudes	· Direct employment gains, primarily
materials	low skill jobs, are likely in recycling	has major implications for the	in low skill jobs, are likely in
· Expanding curbside collection	industries and in recycling collection.	economy and employees. While	recycling industries and in recycling
· Collection of bins of recyclables from	Indirect effects could include both	many persons in society will adapt	collection. Indirect effects could
multi-family units	short and long-term changes in	easily to changes, others will not.	include both short and long-term
· Drop-off depot for multi-family	secondary and tertiary employment.	Mitigation is likely to occur as the	changes in secondary and tertiary
residents not serviced by recycling	Magnitude, timing and direction is	economy readjusts to 3Rs	employment. Magnitude, timing
· Community recycling centres	uncertain. As recycling becomes	management. There should be a	and direction is uncertain. As
of greater than 6 units	industries may become more	business and labour to facilitate this	the recycling industries may become
Blue Box recycling mandated	specialized and centralized.	change in attitude. Education and	more specialized and centralized.
· Engineered recycling depot	Employment opportunities may occur	re-training will be key components	Employment opportunities may
Drop-off depot for rural households	only at one location in the GTA or	to help the working population	occur only at one location in the
	elsewhere in North America.	adapt to new and evolving sectors	GTA or elsewhere in North
		in the "green" economy.	America.
			· Mitigation should enhance benefits.

ent Category/Components ial Leaf and Yard Waste nn ide collection of Icaf and yard	Potential Effects		
Leaf and Yard Waste collection of Icaf and yard		Mitigation/Enhancement	Component Net Effects
waste  Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting			
yard ·	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Magnitude, timing and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment.	has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population and and the state of th	Direct employment gains, primarily in low skill jobs, are likely in the manufacturing of composters, and in the management of the program. Magnitude, itiming and direction of effects is uncertain. Indirect effects could include both short and long term changes in secondary and tertiary employment.

Component Net Effects	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Direct employment, primarily in low skill jobs, at the composting facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.      Minor short-term increase in construction sector employment.
Mitigation/Enhancement	A transition to conserver attitudes has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy.	· Mitigation not required
Potential Effects	Minor direct employment effect in these programs. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.	Direct employment, primarily in low skill jobs, at the compositing facilities and in the management of the program. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.  Minor short-term increase in construction sector employment.
Component Category/Components	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities	-	-	
Municipal reuse centre     Private reuse centre     Non-profit reuse centre     Charitable reuse centres	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term	· Mitigation not required	Direct employment gains, primarily in low skill jobs, are likely at these centres. Indirect effects could include both short and long term
Food reuse organization     Special goods exchange days	changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.		changes in secondary and retuary employment. Magnitude, timing and direction of effects is uncertain.
Public MRFs			
· Processing centre for dry recyclables	Direct employment is likely to be maintained at the MRFs and in the	· Mitigation not required	Direct employment is likely to be maintained at the MRFs and in the
-	management of the program. Indirect effects could include both		management of the program. Indirect effects could include both
	short and long term changes in secondary and tertiary employment.  Magnitude, timing and direction of		short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of
	effects is uncertaint.  Minor short-term increase in construction sector employment		effects is uncertain.  Minor short-term increase in construction sector employment.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables	. Direct employment gains, primarily in	· Mitigation not required	. Direct employment gains, primarily
Depots located at transfer stations	low skill jobs, are likely in haulage and in the management of the		in low skill jobs, are likely in haulage and in the management of the program. Indirect effects could
	include both short and long term		include both short and long term
	changes in secondary and tertiary employment.	,	changes in secondary and tertiary employment.
	· Minor short-term increase in construction sector employment.		Minor short-term increase in construction sector employment.

Component Category/Components	Potential Effects.	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program for source reduction/pre-cycling, reuse and recycling     3ks promotion and education program     Consumer education program	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, iming and direction of effects is uncertain.	has major implications for the economy and employees. While many persons in society will adapt easily to these changes, many will not. Mitigation is likely to occur as the economy readjusts to 3Rs management. There should be a partnership between government, business and labour to facilitate this change in attitude. Education and re-training will be key components to help the working population adapt to new and evolving sectors in the "green" economy	Direct employment gains are likely in printing, production and distribution. Indirect effects could include both short and long term changes in secondary and tertiary employment. Magnitude, timing and direction of effects is uncertain.



MUNICIPALITY: GTA
CRITERION: Potentia

System : Residential Mixed Waste Processing : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

Component Category/Components	Potential Effects	Mitigatlon/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings. Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection			
Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Secycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries.	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally and internationally.	Direct conomic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation to enhance benefits.  Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and vard	. No effect	· Mitigation not required	No effect
waste Drop-off depot for leaf and yard waste	-		
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family	Minor direct economic benefits are likely in the manufacturing of	· Mitigation not required	Minor direct economic benefits     are likely in the manufacturing of
households	composters, and in the management		composters, and in the
distributed to apartment and co-	effects could include both short and		Indirect economic effects could
operative housing complexes	long-term changes in secondary and		include both short and long-term
vermi-composting for multi-fathing households	a reduction in landfill fees, due to		sectors and cost savings from a
	reduced volumes. Magnitude, timing and direction of effects is uncertain.		reduction in landfill fees, due to reduced volumes. Magnitude,
	Over the long-term, this initiative		timing and direction of effects is
	could lead to the development of marketable "green" products in the		ulocitaiii.
-	GTA (Although the industries could locate elsewhere in North America).		

## GENERIC COMPONENTS NET EFFECTS TABLE H6.7

MUNICIPALITY: GTA CRITERION: Potent

: GTA System : Residential Mixed Waste Processing : Potential For Broad Social Impact Indicator: Potential Effects on Economic Development

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Component Net Effects	· No effect	Direct economic benefits are likely in recycling industrics, and in recycling collection. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Mitigation to enhance benefits.  Recycling in all multi-family buildings will increase the supply of recyclable material and should provide better support for recycling industries.
Mitigation/Enhancement	Mitigation not required	The economic base is shifting from manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtathes on the Economy and Environment), and grasp the opportunities for marketing "green" systems and technologies nationally
Potential Effects	· No effect	Direct economic benefits are likely in recycling industries, and in recycling collection. Indirect economic effects could include both short and longterm changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993). Recycling in all multi-famity buildings will increase the supply of recyclable material and should provide better support for recycling industries.
Component Category/Components	Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family respecting to residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	· No effect	· Mitigation not required	. No effect
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" products in the GTA (Although the industries could locate elsewhere in North America).	• Mitigation not required	Minor direct economic benefits are likely in the manufacturing of composters, and in the management of the program. Indirect economic effects could include both short and long-term changes in secondary and long-term sectors and cost savings from a reduction in landfill fees, due to reduced volumes. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
	· Minor direct economic benefits are	The economic base is shifting from	· Minor direct economic benefits
· Special curbside collections of	likely in recycling industries, and in	manufacturing to a more service	are likely in recycling industries,
Christmas trees	collection. Indirect economic effects	orientation. Along with this trend is	and in collection. Indirect
· Special and weekly curbside collections	could include both short and long-	the movement towards a "green"	economic effects could include
of white goods	term changes in secondary and	economy. This transition is being	both short and long-term changes
· Drop-off depots for white goods	tertiary sectors and cost savings from	made by various companies and	in secondary and tertiary sectors.
· Special curbside collection for bulky	a reduction in landfill fees, due to	sectors. However, the long-term	Magnitude, timing and direction of
items	reduced volumes. Magnitude, timing	competitiveness of the region may be	effects is uncertain.
Permanent drop-off depot for HHW	and direction of effects is uncertain.	dependent on the others making the	
· Special HHW drop-off days	Over the long-term, this initiative	transition as well. Government,	
· Toxic Taxi service	could lead to the development of	business, and environmental interests	
· Mobile HHW depots	marketable "green" systems,	should work in partnership to	
	technologies, and products in the	facilitate this transition (eg.	
	GTA (Lesnicki and Mercer, 1993).	Roundtables on the Economy and	
		Environment), and grasp the	
		opportunities for marketing "green"	
		systems and technologies nationally	
		and internationally.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility	Direct economic benefits at these facilities. Indirect economic effects could include both short and longterm changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).	Mitigation not required	in Direct economic benefits at these facilities. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction is uncertain. Over the long-term, this initiative could lead to the development of marketable "green" systems, technologies, and products in the GTA (Mercer, 1993).
Reuse Centres and Activities  Municipal reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors.  Magnitude, timing and direction of effects is uncertain. For example, decreased demand for new products. Over the long-term, this initiative could lead to a viable purchasing option for certain SES groups in the GTA.	· Mitigation not required	Minor direct economic benefits are likely at these centres. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	Provides the infrastructural support for recycling materials by the private and public sector.     Provides a minor economic benefit in the construction sector.	manufacturing to a more service orientation. Along with this trend is the movement towards a "green" economy. This transition is being made by various companies and sectors. However, the long-term competitiveness of the region may be dependent on the others making the transition as well. Government, business, and environmental interests should work in partnership to facilitate this transition (eg. Roundtables on the Economy and Environment), and grasp the eopportunities for marketing "green" systems and technologies nationally and internationally.	Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.  Provides a minor economic benefit in the construction sector.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables Depots located at transfer stations	Provides the infrastructural support for recycling materials by the private and public sector.  Provides a minor economic benefit in the sector.	· Mitigation not required	Provides a minor short term economic benefit in the construction sector. Indirect effect on economic development by providing the infrastructure required for recycling by the private and public sectors.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.	· Mitigation not required	Minor direct economic benefits in printing, production and distribution. Indirect economic effects could include both short and long-term changes in secondary and tertiary sectors. Magnitude, timing and direction of effects is uncertain.

### BSI.OPE

## GENERIC COMPONENTS NET EFFECTS TABLE H6.8

MUNICIPALITY: GTA CRITERION

: Potential For Broad Social Impact

Indicator: Potential Operational Effects on Institutions, Commercial Enterprises and Industries System: Residential Mixed Waste Processing

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings. Collection of residential garbage from multifamily units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multifamily units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Engineered recycling mandated  Engineered recycling depot  Drop-off depot for rural households	All landlords may be required to provide space, facilities and staff time to accommodate recycling and may incur additional costs.	Landlords may need to include additional costs for recycling in annual rent review application.	Potential increase in costs for tenants and landlords.
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	. No effect	Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			-
Door-to-door distribution of backyard composters to 80% of single family households     Large 3-bin composting units distributed to apartment and co-operative housing complexes     Vermi-composting for multi-family households	Landlords may be required to provide space and equipment for composters and may experience increased costs associated with insect and rodent control, staff etc.	Province to consider increase in costs associated with composting services in annual rent review applications	. No effect
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)			
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	The efficiency (or ease) of white goods disposal may have an effect on the sale of white goods (customers may want vendors to take back their old products).  Because of the increasing inconvenience to consumers in disposing of old appliances/furniture, etc., they may sart looking for, and there may be start looking for, and there may be with are smaller and more	Retail stores could develop buyback programs for large and bulky items. The consumer would then not be required to disperse items.	In the long term institutions and commercial enterprises may develop programs to "buy back" used white goods.
	durable.		
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics New mixed waste processing and composting facility	· No effect	· Mitigation not required .	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	. No effect	Mitigation not required	. No effect
Public MRFs  Processing centre for dry recyclables	. No esfect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables Depots located at transfer stations	. No esfect	· Mitigation not required	. No effeet
Residential Promotion and Education  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	. No effect	· Mitigation not required	· No effect



### DCB.SEE

## GENERIC COMPONENTS NET EFFECTS TABLE H6.9

MUNICIPALITY: GTA CRITERION

: Distribution of Social Costs and Benefits

System : Residential Mixed Waste Processing Indicator: Distribution of Socio-Economic Effects on Industry and Population Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	. No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling control of procycling control of or multi-family recycling control.	· No effeet	· Mitigation not required	. No effect
greater units on greater of units. Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	. No effect	· Mitigation not required	. No effect
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and co-operative housing complexes  Vermi-composting for multi-family households	. No effect	Mitigation not required	· No effect
Other Residential Waste Diversion (HIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Residents of some municipalities are provided with white goods and HHW collection, while others are not.	Mitigation not required	Minor effect in different level of service for white goods and HHW collection in some municipalities.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  New mixed waste processing and composting facility	Local residents and businesses may receive nuisance effects related to composting for all region residents.	Site the composting facility in a non-residential area and away from sensitive industry and committed uses.  Develop appropriate mitigation/compensation for site related impacts.  Address equity issue aspect of the siting process.	Negative distribution effect on some local communities, population groups and industries.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.	· Mitigation not required	Positive effect for lower income groups as more low cost items available and adds potential market for their goods.
Public MRFs  Processing centre for dry recyclables	Potential negative distribution effects     on some groups living near the facility.	· Mitigation as "Potential Effects on Residents"	Potential negative distribution effects on some groups living near the facility.
Residential Recycling Depots and Transfer Stations  Dop-off depot for dry recyclables  Depois located at transfer stations	Potential negative distribution effects on some groups living near the facility.	Mitigation as "Potential Effects on Residents"	Potential negative distribution effects on some groups living near the facility.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	. No effect	· Mitigation not required	. No effect

# TABLE H6.10 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA

System: Residential Mixed Waste Processing silts Indicator: Distribution of Lifestyle Effects

CRITERION : Distribution of Social Costs and Benefits Indi

Component Net Effects	· No effect	Minor lifestyle distributional effect between multi-family and low density residents and rural and urban resident.
Mitigation/Enhancement	· Mitigation not required	Mitigation not required
Potential Effects	· No effect	Popular and environmentally beneficial, lifestyle affected throughout the region (Hay, ND; Environies, 1990). Minor difference in lifestyle effects in multifamily and low density development.
Component Category/ Components	Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units in three streams Self haul of garbage Regional recycling legislation Drop-off depot for rural households	Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling mandated

Component Category/ Components P	Potential Effects Mitigation/E	Mitigation/Enhancement	Component Net Effects
·	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.	n not required	Residents of local municipalities without curbside collection may be required to make a greater change to lifestyle to reduce waste by either taking their leaf and yard waste to a facility or composting it at their residence.
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	· Equitable distribution of services.	Mitigation not required	· Equitable distribution of services.

Component Category/ Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	. No effect	· Mitigation not required	· No effect
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables  Depots located at transfer stations	No cifect noted	· Mitigation not required	. No effect
Residential Promotion and Education			
Promotion/education program for source reduction/pre-cycling, reuse and recycling	· No effect	Mitigation not required	. No effect
3Rs promotion and education     program     Consumer education program			
· Consumer education program			

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# TABLE H6.11 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Distribution of Social

: Distribution of Social Costs and Benefits

System: Residential Mixed Waste Processing Indicator: Potential Future Generation Effects of System

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	· No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Drop-off depot for rural households	Costly to start-up and to establish because of market development, but over the long run this initiative could lead to a greater rationalization of resources and conservation of ecological capital.  This could help maintain the availability of resources for the use/enjoyment of future generations.	Continue to promote and educate on 3Rs (Hay, ND; Lesnicki, 1993; Morgan-Fraser, 1993; Watson, 1993).  The likely over-all benefit to future generations needs to be emphasized in promoting these programs. It needs to be stressed that this generation is willing to make some sacrifices to ensure the future prosperity of their children/grandchildren.	Positive effect through more sustainable use of resources and conservation of the environment for future use/enjoyment.

Commonent Category/Commonents	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Costly to start-up and establish but may have environmental benefits in the long run. Uncertain (may be better to have the yard waste composted at the household. e.g., mutch leaves and grass branches) (Lesnicki, 1993).	Evaluate the best approach to management of leaf and yard waste. Address residential on- site mulching, chipping and composting. Could reduce the need for collection costs and costs for large, centralized facilities in the long term and may poss on the future generation a better process, so less facility management/decommissioning cost.	Long term effect uncertain.
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and co-operative housing complexes  Vermi-composting for multi-family households	Moderately costly to start-up and establish but environmentally beneficial in the long run. Should support change in behaviour to reduction and reuse.	Promotion and education should increase future participation.	Positive effect of passing on a healthier environment with resources more available through support for change in behaviour to reduction and reuse.

Positive effect of providing a cleaner environment for the future through support for change in behaviour to repair, reuse and proper disposal.
Costly to start-up and establish but environmentally and possibly economically beneficial in the long run.
Should encourage/support repair and reuse of white goods etc., reduce the use of resources for manufacture of new products, leaving natural resources for the future.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
<ul> <li>Processing centre for dry recyclables</li> </ul>	Costly to start-up and establish because of market development, but environmentally and possibly economically beneficial in the long run. Current generation paying the cost for altering behaviour to a more sustainable society. Required support for recycling.	Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour, which should leave future generations with cleaner environment and more resources available.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable Depots located at transfer stations	Costly to start-up but environmentally and possibly economically beneficial in the long run.  Current generation behaviour paying cost for altering behaviour to a more sustainable society.	· Mitigation not required	Positive effect as the current generation is paying the cost for changing to more sustainable behaviour which should leave future generations with cleaner environment and more resources available.
Residential Promotion and Education			
Promotion/education program for source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program	Should have positive effects in changing current attitudes and behaviours to a more sustainable society which should leave future generations with cleaner environment and more resources available.	Education material could emphasize the benefits to future generation of 3Rs actions today.	Positive effects in changing current attitudes and behaviour to a more sustainable society which should leave future generations with cleaner environment and more resources available.





## GENERIC COMPONENTS NET EFFECTS TABLE H7.1

MUNICIPALITY: GTA CRITERION

: Social Acceptability

System : Residential Existing Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitlgation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Curbside collection of residential garbage from single family dwellings     Collection of residential garbage from multi-family units	. No effect	· Mitigation not required	. No effect
Residential Recycling and Collection			
Curbside collection of Blue Box materials  Expanding eurbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Drop-off depot for rural households	High participation rates but vary with municipality (Environies, 1990; Hay,ND) Greatest participation by single family residences (Gale, 1990) (Environies, 1990)(Hay,ND) Some groups (eg, lower SES) and households less acceptingwilling to participate (Lansana, 1992; Howenstine, 1993; Everett et al, 1992)(Environies, 1990)(Hay, ND) Participation may be limited by a lack of opportunites for multi-family residents (less participation by high rise, high and medium density multi-family buildings)	Additional measures (eg, block- leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Howenstine, 1993; Lansana, 1991; Hager, 1992) Modify program as required to address concerns of elderly (Bagby, 1993)	Participation may be limited by a lack of opportunities for multifamily residents (less participation by high rise, high and medium density multi-family buildings)

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste     Drop-off depot for leaf and yard waste	General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up	Spring, Summer, and Fall reminders to low density residences and apartment superintendents	· No effect
Residential Household Composting			-
Backyard composter distribution programs Large 3-bin composting units distributed to apartment and cooperative housing complexes	Residential composting participation is possible with those who have the facilities (Environics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard	Continue subsidies of units, provide home delivery and provide multilingual instruction for household composters	· Participation by those who have backyards
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc)			
Special curbside collections of Christmas trees     Special and weekly curbside collections of white goods     Drop-off depots for white goods     Special curbside collection for bulky items     Permanent drop-off depot for HHW     Special HHW drop-off days     Toxic Taxi service     Mobile HHW depots	Residents of municipalities without white goods collection may not be willing able to drop off white goods Greater participation by individuals in pick up services (eg, toxic taxis, mobile HHW depots, white goods collection)	Provide call in pick up service for white goods and bulky items	. Increased participation by individuals, higher cost for municipalities for 3Rs

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community Composting	No effect	· Mitigation not required	· No effect
Reuse Centres and Activities  , Municipal reuse centre  Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	In short term, increasing awareness of availability of reusable goods     Longer term demand for goals uncertain	Support with promotion/education program emphasizing the benefits of reuse. Province to consider tax reduction (sales or income tax) for the purchase of used goods	Short term growth in shopping at reuse centres. Longer term uncertain.
Public MRFs  Processing centre for dry recyclables	. No effect	· Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	· No cífeci	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
3Rs promotion and education program	Generally acceptable and important	Expand and refine	Potentially positive effect through
· Consumer education program	to maintaining and increasing participation Indications from	promotion/caucation programs as required based on changing	activities
	response to hot lines, etc is that	demographics, ethnic/language	
	(Environics, 1990; Watson, 1993)	Patterson, 1992)	
		Promotional/Education programs	
		should be based on the successful	
		programs identified in the 3Rs	
		literature (Folz and Hazlett, 1990)	
		For example, pamphlets & brochures	
		(in utility bills, etc) and community	
		information meetings	
		<ul> <li>The role of the schools could be</li> </ul>	
		critical, particularly for new	
		Canadians whose children are	
		receiving the only English instruction	
		in the family Many school boards	
		have environmental education	
		committees and the schools are	
		increasingly being led by Principals	
		and Vice-Principals with an	
		environmental message	

## GENERIC COMPONENTS NET EFFECTS TABLE H7.2

: Social Acceptability MUNICIPALITY: GTA CRITERION

System: Residential Existing
Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage	No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	Acceptable for low density development provided source separation and pick-up, etc. is understood and convenient	Continue to support with promotion/education programs     Ensure convenience of system to maintain positive attitudes     Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes	<ul> <li>Positive effect by maintaining or increasing positive attitudes to 3Rs.</li> </ul>
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard wastc	General acceptance of the collection, although there is some for the resident on how/when to place yard waste for pick up	· Spring, summer and fall reminders to low density residences and apartment superintendents.	· No effect, positive attitudes maintained.

Component Net Effects	General growth in positive attitudes	to sks supported by Household	-	Potentially a positive attitudinal effect.				
Component	· General g			· Potentiall .effect.				
Mitigation/Enhancement	Positive attitudes towards	composing will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated.		Ensure public consultation and participation to address concerns related to HHW.				
Potential Effects	Acceptable for single family	households. Continued use and acceptance antipared. Evidence of acceptance for multi-family residents uncertain.		HHW collection has a positive effect as social awareness is created about household hazardous waste.	Could be concerns regarding spills by the toxic taxis, but generally people are familiar with HHW and	accepting of its management.  Possible concerns about the costs	white goods collection; there may be more economical ways of	managing the material.  Possible short-term concerns about reductions in white goods
Components Category/Components	Residential Household Composting  Backyard composter distribution programs	Large 3-bin composting units distributed to apartment and co-operative bousing complexes	Other Residential Waste Diversion (HHW, Toxic Taxt, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)	Special curbside collections of Christmas trees     Special and weekly curbside collections of	white goods  Drop-ofd depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW	Special HHW drop-off days Toxic Taxi service	. Mobile H.H.W. depois	

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community Composting	Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term.     Greater environmental awareness among companies and employees practising composiing (e.g. Campbells Soup).	Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities.	. No effect
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Positive, public and municipal attitudes, socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs	· Mitigation not required	Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRFs  Processing centre for dry recyclables	Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location.	· Address nuisance effects at existing facilities	. No effect
Residential Recycling Depots and Transfer Stations  • Drop-off depot for dry recyclable  • Depots located at transfer stations/landfills	Encourages positive attitudes and perceptions that the individual/family can contribute to the solution.	Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993)	Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.

Components Category/Components	Potential Effects.	Mitigation/Enhancement	Component Net Effects	
Residential Promotion and Education  3Rs promotion and education program  Consumer education program	Increase awareness of the need for and benefit of 3Rs. Will motivate people to participate.     Consumer education will promote changes in produced design (durable, repairable) and packaging (reduction and recyclable).      Expand promotion and education and education and education and recyclable).	· Expand promotion and education programs.	Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. Consumer education will promote changes in shopping for changes in product design (durable, repairable) and packaging (reduction and recycle).	

# GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System: Residential Existing Indicator: Willingness to Pay

Residents and municipalities are willing to pay part of the cost of operating the collection system. Possible future concerns about the cost of leaf and yard waste collection and composting. Component Net Effects · No effect · Mitigation not required Mitigation not required Mitigation not required Mitigatlon/Enhancement Additional costs appear acceptable to residents. Future questions on Residents and municipalities are willing to pay part of the cost of the necessity for this service are operating the collection system. Potential Effects likely to arise. · No effect Drop-off depot for multi-family residents not Collection of residential garbage from multi-Collection of bins of recyclables from multi-· Curbside collection of leaf and yard waste Curbside collection of Blue Box materials Residential Leaf and Yard Waste Collection Curbside collection of residential garbage · Drop-off depot for leaf and yard waste Drop-off depot for rural households Residential Recycling and Collection Component Category/Components Garbage Collection and Disposal Expanding curbside collection from single family dwellings serviced by recycling Self haul of garbage family units family units

	and to	tess willing e goods	
det Effects	Residents likely willing to pay for subsidized composters and to purchase used goods.	Municipalities may be less willing to pay the cost of white goods and HHW pick up.	
Component Net Effects	Residents subsidized purchase t	Municipalities may to pay the cost of wand HHW pick up.	· No effect
Mitigation/Enhancement	Mitigation not required.	Region/Province to examine product stewardship for white goods Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector	· Mitigation not required.
Potential Effects	A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost.	Uncertain of the willingness of municipalities to pay for white goods and HTW collection. Municipalities appear willing to pay for depots.	<ul> <li>Metro and residents continue to fund the leaf and yard waste composting facilities.</li> </ul>
Component Category/Components	Residential Household Composting Backyard composter distribution programs Large 3-bin composting units distributed to apartment and co-operative housing complexes	Other Residential Waste Diversion (HIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Special curbside collection for HIW  Special HIW drop-off days  Toxic Taxi service  Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities			
Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for new items.	· Mitigation not required	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for new items.
Public MRFs  Processing centre for dry recyclables	<ul> <li>Local government and residents appear willing to pay for the facilities provided subsidies continue.</li> </ul>	· Continue subsidies	Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	<ul> <li>Local government and residents appear willing to pay for the facilities provided subsidies continue.</li> </ul>	· Continue subsidies	Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Promotion and Education  3Rs promotion and education program  Consumer education program	<ul> <li>Local government and residents likely to continue to support this activity</li> </ul>	<ul> <li>Programs should be linked to a public consultation program to address the specific needs of each region.</li> </ul>	Local government and residents likely to continue to support this activity.







## GENERIC COMPONENTS NET EFFECTS TABLE H8.1

MUNICIPALITY: GTA CRITERION

: Social Acceptability

System: Residential Existing/Committed

Indicator: Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Mitigation/Enhancement Component Net Effects	· Mitigation not required
Potential Effects Mit	· No effect
Component Category/Components	Garbage Collection and Disposal Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation

Component Net Effects	Greater participation throughout residential sector with largest gains in multi-family groups.	· General acceptable of collection Drop-off will not be undertaken by many.
Mitigation/Enhancement	Expand recycling and collection service to multi-family buildings and provide at a minimum the same level of convenience as single-family residents. To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of elear information (Hager, 1992; Spacearelli, 1990).  Work with apartment building owners/managers to develop most approaches, 1993; Hager, 1990).  Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Howenstine, 1993; Lansana, 1991; Hager, 1992).  Modify program as required to address concerns of elderly (Bagby, 1993).	· Spring, Summer and Fall reminders to low density residences and apartment superintendents
Potential Effects	High participation rates but vary with municipality (Environics, 1990; Hay,ND).  Greatest participation by single family residences (Gale, 1990; Environics, 1990; Hay, ND).  Some groups (e.g., lower SES) and households less acceptingwilling to participate (Lansana, 1992; Howenstine, 1993; Everett et al., 1992; Environics, 1990; Hay, ND).  With an aging population, the elderly may have some difficulties in participating in the program.  Will allow residents of multiplefamily residences the opportunity to participate resulting in an overall increase in participation.	General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up.     Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience.
Component Category/Components	Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
Residential Household Composting			*.	
Backyard composter distribution programs Large 3-bin composting units distributed to apartment and cooperative housing complexes	Residential composting participation is possible with those who have the facilities (Finironics, 1990). It may be limited to physically mobile people with yard space. A high proportion of these with backyard composters use them.  Participation in community composting is uncertain.	<ul> <li>Continue subsidies of units, provide home delivery and provide multi-lingual instruction for household composters.</li> <li>Provide composting services for residents in multiple-lamily dwellings and support with promotion/education program.</li> <li>Support community composting with strong education/promotion and back up with proper management and community involvement in operations.</li> </ul>	Expanded household composting in low, medium and high density residential areas.	
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Residents of municipalities without white goods collection may not be willing/able to drop off white goods Greater participation by individuals in pick-up services (eg. individuals in pick-up services (eg. white goods and bulky items collection).	Provide call in pick up service for bulky items and white goods	Increased participation by individuals; higher cost for municipalities for 31%.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community composting	· No effect	· Mitigation not required	· No effect	
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	In short term increasing awareness     of availability of reusable goods.     Longer term demand for used     goods uncertain.	Support with promotion/education program emphasising the benefits of reuse.     Province could consider tax reduction (sales or income tax) for the purchase of used goods.	Short term growth in shopping at reuse centres. Longer term effect uncertain.	
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRFs	. No effect	· Mitigation not required	. No effect	
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable Depots located at transfer stations/landfills	· No effect	Mitigation not required	. No effect	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
· 3Rs promotion and education	Generally acceptable and	Expand and refine promotion/education	Potentially positive effect through
program  Consumer education program	important to maintaining and increasing participation.	programs as required based on changing demographics, ethnic/language groups	increased participation in 3Rs activities
	Indications from response to hot	(Bagby, Diangson, and Patterson, 1992).	
	lines, etc. is that people want more	· Promotion/Education programs should be	
	information (Environics, 1990;	based on the successful programs	
	Watson, 1993).	identified in the 3Rs literature (Folz and	
		Hazlett, 1990). For example, pamphlets	
		& brochures (in utility bills, etc.) and	
		community information meetings.	
		· The role of the schools could be critical,	
		particularly for new Canadians whose	
		children are receiving the only English	
		instruction in the family. Many school	
		boards have environmental education	
		committees and the schools are	
		increasingly being led by Principals and	
		Vice-Principals with an environmental	
		message.	



## GENERIC COMPONENTS NET EFFECTS TABLE H8.2

: Social Acceptability MUNICIPALITY: GTA CRITERION

System: Residential Existing/Committed Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	· No effect	. Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents  on serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Engineered recycling depot  Top-off depot for rural households	Potentially acceptable for low-density development, provided source separation and pick-up is understood and convenient.  Provision of recycling service to all apartments over 6 units will provide long term support for 3Rs and should increase waste diversion.  Positive attitude toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose the system for their building (Von Mirebach, 1903).	Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes.     Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes.	Positive effect by maintaining or increasing positive attitudes to 3Rs.

Component Net Effects	. No effect	Potential growth in positive attitudes to 3Rs supported by household composting.     Potential for residents of multifamily households to object to composting if odour and insect problems occur.
Mitigation/Enhancement	Spring, summer and fall reminders to low density residences and apartment superintendents.	Positive attitudes towards composting will be enhanced, provided the nuisance concerns (see Broad Social Impact, Potential for Lifestyle changes) are mitigated.
Potential Effects	General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of back yard composting undertaken.      Unlikely that many residents will dropoff leaf and yard waste.	Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain.     Effects of community composting uncertain.
Components Category/Components	Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	Residential Household Composting  Backyard composter distribution programs  Large 3-bin composting units distributed to apartment and co-operative housing complexes

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (IIIIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)		-	
Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depois for white goods Special curbside collection for bulky items Permanent drop-off depoi for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depois	HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste.  Could be concerns regarding spills by the toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management.  Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material.	Ensure public consultation and participation to address concerns related to HIIW.	Potentially a positive attitudinal     effect
	Possible short-term concerns about reductions in white goods collection.		
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics  Community composting	Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term.  Greater environmental awareness among companies and employees practising composting (e.g. Campbells Soup).	Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities.	. No effect

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs.	Mitigation not required	<ul> <li>Positive effect by reinforcing positive attitudes to the 3Rs</li> </ul>
Public MRFs  • Processing centre for dry recyclables  • Construct new MRF or improve/expand existing MRFs	<ul> <li>Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location.</li> </ul>	Address nuisance effects at existing facilities	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	<ul> <li>Encourages positive attitudes and perceptions that the individual/family can contribute to the solution.</li> </ul>	<ul> <li>Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993).</li> </ul>	Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education     3Rs promotion and education program   Consumer education program	Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate.  Consumer education will promote change in shipping for changes in product design (durable, repairable) and packaging (reduction and	Expand promotion and education programs	Increase awareness of the need for and benefits of 3ks. Will motivate people to participate.  Consumer education will promote change in shopping for changes in product design (durable, regairable) and packaging

#### GENERIC COMPONENTS NET EFFECTS TABLE H8.3

MUNICIPALITY: GTA CRITERION

Component Net Effects Mitigation/Enhancement System: Residential Existing/Committed Indicator: Willingness to Pay Potential Effects : Social Acceptability Component Category/Components Garbage Collection and Disposal

. No effect	Residents and municipalities are probably willing to pay part of the cost of operating the collection system.
· Mitigation not required	• Mitigation to include ongoing subsidies
· No effect	Residents and municipalities are probably willing to pay part of the cost of operating the collection system.     Uncertain if regions are willing to continue existing funding arrangements or willing to accept a reduction in subsidies.
Curbside Collection of residential garbage from single family dwellings     Collection of residential garbage from multi-family units     Self haul of garbage     Regional recycling legislation	Residential Recycling and Collection Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family buildings of greater than 6 units

· Drop-off depot for rural households Blue Box recycling mandated · Engineered recycling depot

Residential Leaf and Yard Waste Collection

Curbside collection of leaf and yard waste

cost of leaf and yard waste collection Possible future concerns about the

and composting.

· Drop-off depot for leaf and yard waste

· Possible future concerns about the cost of leaf and yard waste collection and composting.

· Mitigation not required

· A proportion of residents in each municipality are willing to pay one-
third the cost of backyard composters
municipal expenditures for
education/promotion. Uncertain of acceptance of higher cost, for
composters or for those who have not purchased a composter.
Uncertain of the willingness of municipalities to pay for white goods
and HHW collection. Willing to pay for depots.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
· Re co fur be co	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.	Education program to address the benefits and the need for composting facilities.	Region and residents continue to fund the leaf and yard waste composing facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.
· So co co wi	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.	· Mitigation not required	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.
. Loc appropries	Local government and residents appear willing to pay for the facilities provided subsidies for programs continue.	Continue subsidies, government or private sector.	Local government and residents appear willing to pay for the facilities provided subsidies for programs continue.
Loc app pro con	Local government and residents appear willing to pay for the facilities provided subsidies for programs continue.	· Continue subsidies, government or private sector.	Local government and residents appear willing to pay for the facilities provided subsidies for programs continue.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education  3Rs promotion and education program  Consumer education program	Residential Promotion and Education  3Rs promotion and education program  1. Local government and residents likely public consultation program to continue to support this activity address the specific needs of cac region	Programs should be linked to a public consultation program to address the specific needs of each region	Local government and residents likely to continue to support this activity





## TABLE H9.1 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System: Residential Direct Cost Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal		-	
· Direct Cost system for garbage	· Recycling legislation forces participation	Promotion/cducation and public	· In the short term, some individuals
collection	in the short term although some	consultation programs should help	and groups may not participate fully
· Curbside collection of residential	residents will not support it. In the	increase participation by individuals	in the direct cost system due to
garbage from single family	longer term likely to become	and special/sensitive groups over	initial opposition, although in the
dwellings	acceptable.	time.	longer term, participation is likely to
· Collection of residential garbage	In the short term, some individuals and	<ul> <li>Measure to provide relief from</li> </ul>	increase.
from multi-family units	groups may not participate fully in the	increase costs for low income and	<ul> <li>Any type of direct cost system</li> </ul>
· Self haul of garbage	direct cost system due to initial	large households should be	implemented in a region where there
· Regional recycling legislation	opposition, although in the longer term,	developed.	is a significant proportion of high-rise
	participation is likely to increase.	Cooperation in the region to share	buildings is likely to meet with mixed
	Any type of direct cost system	expertise and knowledge may remove	success. A direct cost system intends
	implemented in a region where there is	some implementation barriers.	to change waste management
,	a significant proportion of high-rise		behaviour by adding an individual
	buildings is likely to meet with mixed		economic incentive. The incentive
-	success. A direct cost system intends to		generally does not exist in buildings
	change waste management behaviour by		of multiple units (Bagby, 1993),
	adding an individual economic incentive.		unless there is broadly-based
	The incentive generally does not exist in		cooperation.
	buildings of multiple units (Bagby,		· The administration and
	1993), unless there is broadly-based co-		implementation of direct cost might
	operation.		be complex and difficult, precluding
	· The administration and implementation		participation by some municipalities.
	of direct cost might be complex and		Cooperation in the region to share
	difficult, precluding participation by		expertise and knowledge may remove
	some municipalities.		some implementation barriers.

Component Net Effects	Blue Box in the short term.
Mitigation/Enhancement	Expand recycling and collection service to multi-family buildings and provide at a minimum the same level of convenience as single-family residents. To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of clear information (Hager, 1992; Spaccarelli, 1990). Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993; Hager, 1990). Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Hawenstine, 1993; Lansana, 1991; Hager, 1992). Modify program as required to address concerns of elderly (Bagby, 1993). Public education, consultation and design of the particular direct cost system will address many of the
Potential Effects	High participation rates but vary with municipality (Environics, 1990; Hay, ND).  Greatest participation by single family residences (Gale, 1990; Environics, 1990; Hay, ND).  Potentially some groups (e.g., lower SES) and households less accepting/willing to participate (Lansana, 1992; Howenstine, 1993; Everett et al., 1992; Environics, 1990; Hay, ND).  Potential for higher contamination rates of Blue Boxes as households place non-recyclables in Blue Box to reduce amount of garbage.
Component Category/Components	Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables, from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Engineered recycling mandated  Engineered recycling depot  Drop-off depot for rural  households

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste     Drop-off depot for leaf and yard waste	<ul> <li>General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up.</li> <li>Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience.</li> </ul>	· Spring, summer, and fall reminders to low density residences and apartment superintendents.	General acceptance of collection  Drop-off will not be undertaken by many.
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households Promotion of vermi-composters to multi-family units  Large 3-bin composting units distributed to apartment and co- operative housing complexes	Residential composting participation is possible with those who have the facilities (Environies, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them. Vermicomposting has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.	Continue subsidies of units, provide home delivery and provide multiligual instruction for household composters. Support residents in multiple-family dwellings and support with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations.	Expanded participation household composing in low, medium and high density residential areas.  Increased participation likely.  Vermicomposting has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.

			#
Component Net Effects	Increased participation by individuals; higher cost for municipalities for 3Rs.	. No effect	. Short term growth in shipping at reuse centres. Longer term uncertain.
Mitigation/Enhancement	Provide call in pick up service for white goods.	Mitigation not required	Support with promotion/education program emphasising the benefits of reuse.     Province to consider tax reduction (sales or income tax) for the purchase of used goods.
Potential Effects	Residents of municipalities without white goods collection may not be willing/able to drop off white goods Greater participation by individuals in pick-up services (eg. toxic taxis, mobile HHW depots, white goods collection).	. No effect	In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain.
Component Category/Components	Other Residential Waste Diversion (HIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service	Composting Facilities  Contralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics	Reuse Centres and Activities  Municipal reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days

Component Category/Components Potential Effects	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry	· No effect	Mitigation not required	· No effect
recyclables Construct new or improve/expand existing MRFs			
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable     Depots located at transfer     stations/landfills	. No effect	· Mitigation not required	. No effect

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education  Promotion/education program on Direct Cost system Promotion/education program on source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Environics, 1990; Watson, 1993; Morgan-Frazer, 1993; Lesnicki and Mercer, 1993; Foster, 1993).	Expand and refine promotion/cducation programs as required based on changing demographics, chinci/anguage groups (Bagby, Diangson, and Patterson, 1992).  Promotional/Tducation programs should be based on the successful programs identified in the 3Rs literature (e.g., Folz and Hazlett, 1990). For example, pamphlets & brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message.	Potentially positive effect through increased participation in 3Rs activities.

# GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Social Acceptability

A Syste

System: Residential Direct Cost Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
· Direct Cost system for garbage	· Long term effects through increasing	· Mitigation to include proper	· Long term effects through increasing
collection	awareness and support for 3Rs of	design of collection system for	awareness and support for 3Rs of
· Curbside collection of residential	regional recycling legislation.	apartment building owners,	regional recycling legislation.
garbage from single family dwellings	· Potential for multi-family households	managers, and dwellers.	· Potential for multi-family households to
Collection of residential garbage from	to object to composting if odour, and	Public education and	object to composting if odour, and
multi-family units	insect problems occur.	consultation will be important	insect problems occur.
· Self haul of garbage	<ul> <li>Administration and monitoring may</li> </ul>	to enhancing positive attitudes.	· Administration and monitoring may be
Regional recycling legislation	be so complex that added to the	The householder should be	so complex that added to the collection
	collection costs, a direct cost system	shown how waste management	costs, a direct cost system may not be
	may not be worth the effort (Pollock,	costs are reduced on their	worth the effort (Pollock, 1993).
	1993).	property taxes.	Initially, there will be some negative
	· Initially, there will be some negative		attitudes on the part of the public to a
	attitudes on the part of the public to		direct cost system. It may be viewed by
	a direct cost system. It may be		the public as an additional "tax" on
	viewed by the public as an additional		citizens. This attitude may change by
	"tax" on citizens. This attitude may		implementing a direct cost system
	change by implementing a direct cost		designed specifically for Metropolitan
	system designed specifically for		Toronto. Public education and
	Metropolitan Toronto.		consultation will be important to
	In longer term, high participating		enhancing positive attitudes. The
	households may perceive a distinct		householder should be shown how
	financial advantage over lower		waste management costs are reduced
	participating households, increasing		on their property taxes.
	their enthusiasm for the initiative.		· In longer term, high participating
			households may perceive a distinct
			financial advantage over lower
			participating households, increasing
			their enthusiasm for the initiative.

		one
Component Net Effects	Positive effect by maintaining or increasing positive attitudes to 3Rs.  Positive attitude toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose system.	Could reduce the amount of composting of leaf and yard waste done on-site.
Mitigation/Enhancement	Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes. Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes.	Spring, summer and fall reminders to low density residences and apartment superintendents.
Potential Effects	Acceptable for low-density development, provided source separation and pick-up is understood and convenient (Hager, 1992).  Drop-off for multi family and single family not as convenient but acceptance dependent on location and hours of operation of depot (Hager, 1992).  Provision of recycling service to all apartments over 6 units will provide long term support for 3Rs and should increase waste diversion (Hager, 1992).  Positive attitude toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose system.	General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of backyard composting undertaken.  Unlikely that many residents will drop-off leaf and vard waste.
Components Category/Components	Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Door-to-door distribution of backyard	· Acceptable for low density family	· Provide promotion/education	· General growth in positive attitudes to
composters to 80% of single family	households. Continued use and	program and consultation	3Rs supported by household
households	acceptance anticipated. Evidence of	program for multi-family	composting.
· Promotion of vermi-composters to	acceptance for multi-family residents	residences,	· Potential for multi-family residents to
multi-family units	uncertain. Vermicomposting has not	· Positive attitudes towards	object to composting if odour, insect
· Large 3-bin composting units	been accepted on a large scale;	composting will be enhanced,	and rodent problems and health
distributed to apartment and co-	indications are that it may not be	provided the nuisance concerns	concerns persist.
operative housing complexes	accepted in the long term.	(see Broad Social Impact) are	
	<ul> <li>Attitudes to community composting</li> </ul>	mitigated.	
	uncertain.		
	· Potential for multi-family residents to		
	object to composting if odour, insect		
	and rodent problems and health		
	concerns persist.		

Component Net Effects	Potentially a positive attitudinal effect	. No effect
Mitigation/Enhancement	Ensure public consultation and participation to address concerns related to HHW.	Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities.
Potential Effects	HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste.      Could be concerns regarding spills by the toxic taxt and mobile HHW depot, but generally people are familiar with HHW and accepting of its management (Environics, 1990).      Possible concerns about the costs of providing toxic taxt service and white goods collection; there may be more economical ways of managing the material (Lesnick, 1993).      Possible short-term concerns about reductions in white goods collections in white goods collection.	Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term.  Greater environmental awareness among companies and employees practising composting (e.g. Campbells Soup).
Components Category/Components	Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depois for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs.	· Mitigation not required	Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRFs  • Processing centre for dry recyclables  • Construct new or improve/expand existing MRFs	Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location.	· Address nuisance effects at existing facilities	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	Encourages positive attitudes and perceptions that the individual/family can contribute to the solution.	Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993).	Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education  Promotion/cducation program on Direct Cost system Promotion/cducation program on source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program	Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate (Morgan-Frazer, 1992; Lesnicki, 1993).  Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable).	Expand promotion and cducation programs. Province to assist with cost and planning, if required.	Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate.     Consumer education could promote change in shopping behaviour and demand for changes in product design (durable, repairable) and packaging (reduction and recycle).



# TABLE 19.3 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System: Residential Direct Cost Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
Direct Cost system for garbage collection	Implementing a direct cost system in multiple-family dwellings is difficult	Prior to the implementation of direct cost for garbage collection, local tax assessments	Initial opposition to increase costs of collection of garbage
· Curbside collection of residential	because of the lack of individual	should have a portion of the tax bill	without decrease of taxes.
garbage from single family dwellings	economic incentive to recycle (difficult to identify who disposes of	specifically designated for waste management or a specific waste management levy similar to	larger households may be
Collection of residential garbage from multi-family units	the garbage). The apartment	the water and sewer fees. This tends to force people to think about the costs of garbage	unable/unwilling to pay for garbage collection.
Sclf haul of garbage	tenants as the beneficiary of their	and waste management. Following an	The costs to the municipality of
Regional recycling legislation	recycling activity (Bagby, 1993).	adjustment period, people can more readily	a direct cost system may
	Apartment owners may be unwillingly to nav to provide recycling services to	direct cost systems (e.g. Scattle). Other	After the phase-in period,
	tenants.	important measures that mitigate the negative	households are likely to realize
	· Generally accepted by residents	effects of a direct cost system include: the	the benefit of diverting their
	(Environics, 1990).	provision of an expanded recycling program,	waste through lower costs.
	· Potential for the system to be seen as	leaf/yard waste collection, backyard	
	a regressive tax system affecting	composters and HHW service, free or at	
	lower-income groups the most.	minimal costs; the organization of variable	
	<ul> <li>After the phase in period households</li> </ul>	rate systems to allow residents a variety of	
	are likely to realize the benefit of	choice in waste management service; an	
	diverting their waste through lower	enforcement section to deal with illegal	
	costs	dumping; and possibly rates for low-income	
		residences (equity concerns).	
		Develop a direct cost and collection system	
		that is appropriate for apartment nouseholds.  Provide incentives to apartment owners to	
		provide recycling services to tenants.	
		· Consider ways of easing the burden on lower	
		income and large households for direct cost	
1		garbage collection.	

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection  Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres  Recycling at all multi-family buildings of greater than 6 units  Blue Box recycling mandated  Blue Box recycling depot for rural households	Residents and municipalities are willing to pay part of the cost of operating the collection system.  Willingness of tenants and landlords to pay increased costs is uncertain.	The region could provide advice/audits to apartment owners on the best and lowest-cost recycling opportunities.	Willingness of tenants and landlords to pay increased costs is uncertain.
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Possible future concerns about the cost of Icaf and yard waste collection and composting.	. Mitigation not required	Possible future concerns about the cost of leaf and yard waste collection and composting.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Promotion of vermi-composters to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.	Support promotion of composting with education of benefits.     Continue/Increase subsidy for composters.	A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion.  Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Toxic Taxi service	Uncertain of the willingness of municipalities to pay for white goods and HHW collection. Willing to pay for depots.	Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HHW management, and examine possibilities for joint programs with private sector.	Municipalities may be less willing to pay the cost of white goods pick up and fill W.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  Community composting	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may	Education program to address the benefits and the need for composting facilities.	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a
Reuse Centres and Activities	become an issue for some people.		composting facility may become an issue for some people.
Municipal reuse centre Private reuse centre Non-profit reuse centre	Some people are willing to purchase used goods. If centres become convenient and shopping experiences	· Mitigation not required	Some people are willing to purchase used goods. If centres become convenient and
Food reuse organization     Special goods exchange days	acceptable, more people may be willing to pay for used items.		snopping experiences acceptable, more people may be willing to pay for used items.
Public MRFs  Processing centre for dry	· Local government and residents	· Mitigation to include government or private	Local government and residents
recyclables Construct new or improve/expand existing MRFs	appear willing to pay for the facilities provided subsidies continue.	sector subsidies	appear willing to pay for the facilities provided subsidies continue.
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclable Depots located at transfer stations/landfills	<ul> <li>Local government and residents appear willing to pay for the facilities provided subsidies continue.</li> </ul>	Miligation to include government or private sector subsidies	Local government and residents appear willing to pay for the facilities provided subsidies continue.

Component Category/Components Potential Effects	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program on Direct Cost system	Promotion/education program on The Region and residents likely to Direct Cost system continue to support this activity.	Programs should be linked to a public consultation program to address the specific	The Region and residents likely to continue to support this
Promotion/education program on source reduction/pre-cycling,		needs of each region.	activity.
reuse and recycling 3Rs promotion and education			
program Consumer education program			







#### GENERIC COMPONENTS NET EFFECTS TABLE H10.1

: Social Acceptability MUNICIPALITY: GTA CRITERION

System: Residential Expanded Blue Box Indicidenties, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul-of garbage Regional recycling legislation	· No effect	. No mitigation required	. No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	High participation rates but vary with municipality (Environies, 1990; Hay, ND). Greatest participation by single family residences (Gale, 1990; Environies, 1990; Hay, ND). Some groups (e.g., lower SES) and households potentially less acceptingwilling to participate (Lansana, 1992; Howenstine, 1993; Everett et al., 1992; Howenstine, 1993; Hay, ND). Will allow residents of multiplefamily residences the opportunity to participate resulting in an overall increase in participation.	To encourage apartment dwellers to participate use apartment committee and block volunteer approach (Bagby, 1993) and ensure distribution of clear information (Hager, 1992, Spaccarelli, 1990).  Work with apartment building owners/managers to develop most appropriate collection system (Von Mirbach, 1993, Hager, 1990).  Additional measures (e.g., block-leader approaches) may be needed to involve different ethnicities and lower SES groups (Bagby, Diangson and Patterson, 1992; Burn, 1991; Everett et al., 1992; Hager, 1992).  Modify program as required to address concerns of elderly (Bagby, 1993).	Greater participation throughout residential sector with largest gains in multi-family, lower-income and ethnic groups.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste     Drop-off depot for leaf and yard waste	General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up.  Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience.	<ul> <li>Spring, summer, and fall reminders to low density residences and apartment superintendents.</li> </ul>	General acceptable of collection Drop-off will not be undertaken by many.
Residential Household Composting			
Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	Residential composting participation is possible with those who have the facilities (Environies, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them.  Vermicomposting has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.	Continue subsidies of units, provide home delivery and provide multi-lingual instruction for household composters. Support residents in multiple-family dwellings and support with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations.	Expanded participation household composting in low, medium and high density residential areas.  Vermicomposting has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HIIW, Toxic Taxi, Pilot Wet.Dry, White Goods Collection, White Goods Drop-off)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots	Residents of municipalities without white goods collection may not be willing able to drop off white goods.  Greater participation by individuals in pick-up services (eg. toxic taxis, mobile HHW depots, white goods collection).	. Provide call-in pick-up service for white goods.	Increased participation by individuals, higher cost for municipalities for 3Rs.
Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  Community composting	. No effect	· Mitigation not required	· No effect
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain.	Support with promotion/education program emphasising the benefits of reuse.     Province to consider tax reduction (sales or income tax) for the purchase of used goods.	Short term growth in shipping at reuse centres. Longer term uncertain.

			ough style.
cts			Potentially positive effect through increased participation in 3Rs activities and changes to lifestyle.
Component Net Effects	. 5	: :	afly positive of participes and characters.
Сотропет	· No effect	. No effect	· Potenti
Mitigation/Enhancement	. Mitigation not required	. Mitigation not required	Expand and refine promotion/education programs as required based on changing demographics, chinic/language groups (Bagby, Diangson, and Patterson, 1992).  Promotional/Education programs should be based on the successful programs identified in the 3Rs literature (e.g., Folz and Hazlett, 1990). For example, pamphlets & brochures (in utility bils, etc.) and community information meetings.  The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message.
X	· ·		<u> </u>
Potential Effects	· No effect	· No effect	Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Environics, 1990; Watson, 1993).
Component Category/Components	Public MRFs  Processing centre for dry recyclables Construct new MRF or improve/expand existing MRF	Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations	Residential Promotion and Education  Promotion/education program on Expanded Blue Box program on source reduction/ precycling/reusc/recycling  3Rs promotion and education program  Consumer education program

### TABLE H10.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System : Residential Expanded Blue Box Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings. Collection of residential garbage from multi-family units. Self haul of garbage. Regional recycling legislation	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection			-
Curbside collection of Expanded Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	Drop-off for multi family and single family not as convenient but acceptance dependent on location and hours of operation of depot.  Provision of recycling service to all apartments over 6 units will provide long term support for 3Rs and should increase waste diversion.  Expanded blue box should make it easier for people to source separate by reducing the questions/concerns about which material goes in. Increases positive attitude to 3Rs.	Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes.  Programs designed for specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes.  Positive attitudes toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose the system for their building.	Positive effect by maintaining or increasing positive attitudes to 3Rs.     Positive attitudes toward recycling in multi-family buildings likely to be enhanced by allowing apartment owners/managers to choose the system for their building.

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection  Curbside collection of leaf and yard waste  Drop-off depot for leaf and yard waste	General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of back yard composting undertaken.  Unlikely that many residents will dropoff leaf and yard waste.	Spring, summer and fall reminders to low density residences and apartment superintendents.	Could reduce the amount of composing of leaf and yard waste done on-site.
Residential Household Composting  Backyard composter distribution programs  Door to door distribution of backyard composters to 80% of single family households  Promotion of vermicomposting to multi-family units  Large 3-bin composting units distributed to apartment and cooperative housing complexes	Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicomposting has not been accepted on a large scale; indications are that it may not be accepted in the long term.  Attitudes to community composting uncertain.  Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.	Provide promotion/education program and consultation program for multi-family residences. Positive attitudes towards compositing will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated.	General growth in positive attitudes to 3 As supported by household composting.  Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.

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Component Net Effects	. Potentially a positive attitudinal cffect.	· No effect
Mitigation/Enhancement	Ensure public consultation and participation to address concerns related to HHW.	Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities.
Potential Effects	HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste. Could be concerns regarding spills by the toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management. Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material. Possible short-term concerns about reductions in white goods collection.	Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term.     Greater environmental awareness among companies and employees practising composting (e.g. Campbells Sour).
Components Category/Components	Other Residential Waste Diversion (IHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Droport)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for household hazardous waste (HHW) Special household hazardous waste drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste  In-vessel composting of source separated organics  Community composting

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Positive, public and municipal attitudes; socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs.	· Mitigation not required	Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRFs  • Processing centre for dry recyclables • Construct new MRF or improve/expand existing MRF	Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location.	Address nuisance effects at existing facilities.	. No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclables  Depots located at transfer stations	Encourages positive attitudes and perceptions that the individual/family can contribute to the solution.	Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993).	Positive effect; encourages positive artitudes and perceptions that the individual/family can contribute to the solution.
Residential Promotion and Education Promotion/education program on Expanded Blue Box program Promotion/education program on source reduction/ pre- cycling/reuse/recycling 3Rs promotion and education program Consumer education program	Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate.  Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable).	Expand promotion and education programs. Province to assist with cost and planning if required.	Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate. Consumer education could promote change in shopping behaviour and demand for changes in product design (durable, repairable) and packaging (reduction and recycle).

### GENERIC COMPONENTS NET EFFECTS TABLE H10.3

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System: Residential Expanded Blue Box Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation	No effect	· Mitigation not required	· No effect
Residential Recycling and Collection  Curbside collection of Expanded Blue Box materials  Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households Community recycling centres Engineered recycling depot Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated	Residents and municipalities are willing to pay part of the cost of operating the collection system. Uncertain if all municipalities in region are willing to continue existing funding arrangements, or willing to accept a reduction in subsidies, or willing to take on extra costs of expanded Blue Box.  Increased costs for Landlord of providing recycling services likely to be possed on to tenants in rent increases. Willingness of tenants to	The region could provide advice/audits to apartment owners on the best and lowest cost recycling opportunities.	In short term uncertain if tenants and landlords are willing to assume additional costs for recycling services.  Uncertain if all municipalities in region are willing to continue existing funding arrangements, or willing to accept a reduction in subsidies, or willing to take on extra costs of expanded Blue Box.
	pay increased rent is unknown.		-

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard     waste     Drop-off depot for leaf and yard waste	Possible future concerns about the cost of leaf and yard waste collection and composting.	Mitigation not required	Possible future concerns about the cost of leaf and yard waste collection and composting.
Residential Household Composting  - Backyard composter distribution programs  - Door to door distribution of backyard composters to 80% of single family households  - Promotion of vermicomposting to multi-family units  - Large 3-bin composting units distributed to apartment and cooperative housing complexes	A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.	Support promotion of composting with cducational of benefits.     Continuc/increase subsidy for composters.	A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher cost, for composters or for those who have not purchased a composter.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet-Dry, White Goods Collection, White Goods Drop-off)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for household hazardous waste (HHW)  Special household hazardous waste drop-off days  Toxic Taxi service  Mohile HHW depots	. Uncertain of the willingness of municipalities to pay for white goods and HHW collection. Willing to pay for depots.	Region/Province to examine product stewardship for white goods.     Region/Province to examine effectiveness of HIPW management, and examine possibilities for joint programs with private sector.	Municipalities may be less willing to pay the cost of white goods pick-up and HHIW.
Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel composting of source separated organics Community composting	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.	Education program to address the benefits and the need for composting facilities.	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer, term the higher costs of locating and operating a composting facility may become an issue for some people.
Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.	· Mitigation not required	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs  Processing centre for dry recyclables  Construct new MRF or improve/expand existing MRF	<ul> <li>Local government and residents appear willing to pay for the facilities provided subsidies continue.</li> </ul>	Private sector or province to continue subsidies	Local government and residents appear willing to pay for the facilities provided subsidies continue.
Residential Recycling Depots and Transfer Stations  Dop-off depot for dry recyclables  Depots located at transfer stations	Local government and residents appear willing to pay for the facilities provided subsidies	Private sector or province to continue subsidies	Local government and residents appear willing to pay for the facilities provided subsidies
Residential Promotion and Education  Promotion/education program  Promotion/education program  Promotion/education program on source reduction/ precycling/reuse/recycling	continue.  Local government and residents likely to continue to support this activity.	Programs should be linked to a public consultation program to address the specific needs of each region.	continue.  Local government and residents likely to continue to support this activity.
· Consumer education program			





#### SA.PAR

### GENERIC COMPONENTS NET EFFECTS TABLE H11.1

MUNICIPALITY: GTA CRITERION

: Social Acceptability

System: Residential Wet/Dry

Indicator: Participation in 3Rs by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
· Curbside Collection of residential garbage from single family	Recycling legislation forces participation in the short-term although some	· Mitigation not required	Recycling legislation forces     participation in the short term
dwellings in three streams Collection of residential garbage	residents will not support it. In the longer term likely to become acceptable.		although some residents will not support it. In the longer term
from multi-family units in three			likely to become acceptable.
streams			
· Self haul of garbage			
· Regional recycling legislation			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection			
· Provide carts to all single family	· Wet/Dry systems require more extensive	· Promotion/education and public	· Wet/Dry systems require high
households	participation than traditional Blue	consultation programs would be	levels of commitment by
· Separation of waste into three	Boxes. When people do not participate	absolutely essential to ensuring high	participants to prevent
streams	in Blue Box programs, there is the loss	levels of participation and adequate	contamination of wet and dry
· Drop-off depot for multi-family	of potential recyclables. With a wet/dry	sorting on the part of residents. These	streams. The highest levels of
residents not serviced by recycling	system, if participation is not extensive	efforts should be targeted in particular	participation and commitment
· Drop-off depot for rural	enough, there is a strong likelihood of	to non-participating groups and	are most likely in single-family
households	contamination of either the wet or dry	residences subject to higher turnover.	residences because of low
	stream. If contamination is too high it	Ensure the provision of convenient	turnover and greater amounts of
	can seriously jeopardise the compost	systems designed for various types of	storage space than multiple-
	quality and become a costly sorting	residences. Work with apartment	family residences.
	exercise (Taylor, 1993).	building owners/managers to develop	
	· If the Wet/Dry system is not convenient	most appropriate collection system	
	for persons in various types of	(Von Mirbach, 1993; Hager, 1990).	
	residences, participation may be very	· Additional measures (e.g., block-leader	
	low.	approaches) may be needed to involve	
	With an aging population, the elderly	different ethnicities and lower SES	
	may have some difficulties in	groups (Bagby, Diangson and	
	participating in the program.	Patterson, 1992; Burn, 1991; Everett, et	
	· Will allow residents of multiple-family	al., 1992; Howenstine, 1993; Lansana,	
	dwellings the opportunity to participate,	1991; Hager, 1992).	
	resulting in an overall increase in	· Modify program as required to address	
	participation. Although uncertain of	concerns of elderly (Bagby, 1993).	
	applicability to multiple residence		
	buildings.		

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection (continued)			
Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	It is difficult to predict the participation rate in Wet/Dry schemes. In Guelph, the Wet/Dry program achieved 62% diversion of the residential waste stream (City of Guelph, 1991). However, the project comprised fewer than 1000 residences, primarily single-family dwellings and with extensive promotion and education (City of Guelph, 1991). Guelph is unlike the GTA in that it is more ethnically homogenous. Guelph officials believe that residents are inclined to participate because of strong environmental and rural roots (Siebel, 1993). All these characteristics probably lead to the conclusion that Guelph's participation rate would be higher than the GTA.		
Residential Leaf and Yard Waste Collection			
Seasonal separate collection of leaf and yard waste     Drop-off depot for leaf and yard waste	General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pickup.  Drop-off of leaf and yard waste unlikely on a large scale due to inconvenience.	Spring, summer, and fall reminders to low-density residences and apartment superintendents.	General acceptance of collection.  Drop-off will not be undertaken by many.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting			
Door-to-door distribution of backyard composters to 80% of single family households Large 3-bin composting units distributed to apartment and cooperative housing complexes Vermi-composting for multi-family households	Residential composting participation is possible with those who have the facilities (Environics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters us them.  Vermicomposting has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.	Continue subsidies of unit, provide home delivery and provide multilingual instruction for household composters.  Support residents in multiple-family dwellings with promotion/education program and consultation program to define the best composting system for each building.  Support community composting with strong education/promotion and back up with proper management and community involvement in operations.	Expanded participation in household composting low, medium and high density residential areas.  Vermicompositing has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Residents of municipalities without white goods collection may not be willing/able to drop off white goods.  Greater participation by individuals in pick-up services (e.g., toxic taxis, mobile HHW depots, white goods and bulky items collection).  If HHW collection or depot is not convenient, it may lead to HHW in the wet or dry streams with potentially serious effects on the compost quality (Taylor, 1993).	Provide call in pick up service for bulky items and white goods.     Monitor the wet stream for HHW contamination. Emphasize HHW services in education/promotion.	Increased participation by individuals, higher cost for municipalities for 3Rs.

Potential Effects	2	Mitigation/Eohancement	Component Net Effects
Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams.	ecause	Proper sorting by the majority of citizens is essential.	Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams.
In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain.	ger rtain.	Support with promotion/education program emphasizing the benefits of reuse. Province to consider tax reduction (sales or income tax) for the purchase of used goods.	Short term growth in shopping at reuse centres. Longer term uncertain.
Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams.	cause	Proper sorting by the majority of citizens is essential.	Municipalities may be hesitant to participate in Wet/Dry systems because of potentially higher costs associated with sorting the various streams.
. No effect		Mitigation not required	· No effect

Component Net Effects	Potentially positive effect through increased participation.	
Mitigation/Enhancement	Promotion/education and public consultation programs would be essential to ensuring high levels of	participation and adequate sorting on the part of residents. Implementation of a Wet/Dry system requires a significant altering of attitudes and behaviours on the part of citizens. These efforts should be targeted in particular to non-participating groups and residences subject to higher turnover.
Potential Effects	Generally acceptable and important to ensuring participation. Implementation of Wet/Dry City-wide	program will require a high level of personal contact with the public and a very direct monitoring and feedback system (Hoornweg, Otten and Wong, 1993).  Ongoing consultation with the public is essential (Siebel, 1993).
Component Category/Components	Residential Promotion and Education Promotion/education program for wet/dry system Promotion/education program for	source reduction/pre-cycling, reuse and recycling 3Rs promotion and education program Consumer education program

#### SA.AP

# GENERIC COMPONENTS NET EFFECTS TABLE H11.2

CRITERION : Social Acceptability MUNICIPALITY: GTA

Indicator: Attitudes and Perceptions to 3RS Activities System: Residential Wet/Dry

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
· Curbside Collection of residential	· No effect	· Mitigation not required	· No effect
garbage from single family			
dwellings in three streams			
· Collection of residential garbage			
from multi-family units in three			
streams			-
· Self haul of garbage			-
· Regional recycling legislation			

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection			
Provide carts to all single family	· Initially, there will be extensive	· Extensive promotion/education and	· There is no data on a North
households	questions about the purpose and	public consultation programs will be	American wet/dry system in medium
Separation of waste into three	methods of the wet/dry system (Siebel,	essential to achieving needed levels	to high density urban areas. There is
streams	1993).	of participation and correct sorting	likely to be some opposition to the
· Drop-off depot for multi-family	Many people may consider the wet/dry	behaviour.	from hulding owners managers and
· Drop-off depot for rural	society's waste problem. Other	maintain positive attitudes.	residents because of costs and
households	jurisdictions have not implemented	· Programs designed for specific	nuisance effects. Some concerns may
	wet/dry systems because they don't	community groups (i.e. sensitive to	be addressed by developing various
	actively force people to think about the	ethnic and language diversity) may	alternative systems for large
	3Rs, only about source separation	lead to more positive attitudes.	apartments or arranging for more
	(Von Mirbach, 1993).		frequent removal.
	· Probably acceptable for low-density		· Probably unacceptable in multi-
	development, provided system is		family buildings.
	understood and convenient.		· Residents, in particular elderly an
	Possibly unacceptable for high-density		disabled may not accept Wet/Dry if
	development. The need to source		inconveniences such as odour, waste
	separate in a bin system may cause		sticking to bin and moving 90 gallon
	significant odours in individual		bins in winter are extensive.
	apartments and buildings.		
	<ul> <li>Building owners and managers may</li> </ul>		
	view the Wet/Dry System as		
	unacceptable because of the potential		
	for vermin, insects, odours, hygiene		۰
	concerns and potential cost.		
	· Residents, in particular elderly an		
	disabled may not accept Wet/Dry if		
	inconveniences such as odour, waste		
	sticking to bin and moving 90 gallon		
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Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection  Seasonal separate collection of leaf and yard waste  Drop-off depot for leaf and yard waste	General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of backyard composting undertaken.  Unlikely that many residents will dropoff leaf and yard waste.	Spring, summer and fall reminders to low density residences and apartment superintendents.	Could reduce the amount of compositing of leaf and yard waste done on-site.
Residential Household Composting  Door-to-door distribution of backyard compositers to 80% of single family households  I arge 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicompositing has not been accepted on a large scale; indications are that it may not be accepted in the long term.  Potential for multi-family building residents to object to composting if odour, insect and rodent problems and health concerns are prevalent.	Positive attitudes towards compositing will be enhanced, provided the nuisance concerns (see "Broad Social Impact, Potential for Lifestyle Effects") are mitigated.	General growth in positive attitudes to 3Rs supported by household compositing.  Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns are prevalent.

Component Net Effects	ation and Potentially a positive attitudinal effect	Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. The addition of increased amounts of "wet" waste from the Wet/Dry System may aggravate the problem.
Mitigation/Enhancement	Ensure public consultation and participation to address concerns related to HHW.	Ensure public consultation and participation as part of the siting and monitoring process, and to address concerns related to existing composting facilities.
Potential Effects	HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste.  Could be concerns regarding spills by toxic taxi and mobile HHW depot, but generally people are familiar with HHW and accepting of its management.  Possible concerns about the costs of providing toxic taxi service and white goods collection; there may be more economical ways of managing the material.  Possible short-term concerns about reductions in white goods collection.	Existing facilities are likely to become less favourable if odour and health issues are not resolved in the near term. The addition of increased amounts of "wet" waste from the Wet/Dry System may aggravate the problem.  Greater environmental awareness among companies and employees practising compositing (e.g. Campbells
Component Category/Components	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-Off depois for white goods Drop-off depois for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depois	Composting Facilities  Central composting facilities (invessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Coda reuse organization Special goods exchange days	Positive, public and municipal attitudes, socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs.	Mitigation not required	Positive effect by reinforcing positive attitudes to the 3Rs.
Public MRFs  New MRF or improve/expand existing MRF's to process larger dry stream of recyclable	<ul> <li>Currently acceptable; traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location.</li> </ul>	· Address nuisance effects at existing facilities	· No effect
Residential Recycling Depots and Transfer Stations  Drop-off depot for dry recyclable  Depots located at transfer stations/landfills	Encourages positive attitudes and perceptions that the individual/family can contribute to the solution.	Attitudes may be enhanced by informing residents as to the success of the program (Siebel, 1993).	Positive effect; encourages positive attitudes and perceptions that the individual/family can contribute to the solution.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Promotion and Education			
Promotion/education program for wet/dry system	· Increase awareness of the need for and benefits of 3Rs and the Wet/Dry	Broad expansion of promotion and education programs including	Increase awareness of the need for and benefits of 3Rs and Wet/Dry.
Promotion/education program for source reduction/pre-cycling, reuse	system.  The public will need extensive	telephone "hotlines".	Will motivate people to participate. Will educate people on how to
and recycling  3Rs promotion and education	information, education and consultation on the Wet/Dry System (Objectives,		participate in a constructive fashion.
program Consumer education program	Methods, Participation, etc.). Consumer education will promote		
	change in shopping for changes in product design (durable, repairable) and packaging (reduction and		
	recyclable).		

#### SA.WIP

# GENERIC COMPONENTS NET EFFECTS TABLE H11.3

: Social Acceptability MUNICIPALITY: GTA CRITERION: Social

System: Residential Wet/Dry Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal			
· Curbside Collection of residential	· No effect	Mitigation not required	No effect
garbage from single family			
dwellings in three streams			,
· Collection of residential garbage			
from multi-family units in three			
streams			
· Self haul of garbage			.*
Regional recycling legislation	The state of the s		

Component Net Effects	If the wet/dry system is costly to apartment owners/managers, there will be resistance to pay. As the costs of the wet/dry system are unknown, the effect is unknown.  The willingness of municipalities to pay the costs of the wet/dry system are unknown. Municipalities may be hesitant to participate in wet/dry system because of potentially higher costs.	Additional costs of leaf and yard waste collection and composting are currently acceptable to residents, but costs may become an issue in the future.
Mitigation/Enhancement	The region could provide advice/audits to apartment owners on the best and lowest cost Wet/Dry System.	. Mitigation not required
Potential Effects	Residents and municipalities have been willing to pay part of the costs of operating the traditional Bluc Box system. Uncertain if all municipalities in region are willing to continue existing funding arrangements or willing to accept reduction in subsidies. Willingness of municipalities to accept the costs of the wet/dry system is unknown because of lack of data on wet/dry. However, the capital costs may be significant (sorting facilities, trucks for 3 streams, 3 bins/household, etc.)  If the wet/dry system is costly to apartment owners/managers, there will be resistance to pay. As the costs of the wet/dry system are unknown, the effect is unknown.	Additional costs of leaf and yard waste collection and composting are currently acceptable to residents, but costs may become an issue in the future.
Component Category/Components	Residential Recycling and Collection  Provide carts to all single family households Separation of waste into three streams Drop-off depot for multi-family residents not serviced by recycling Drop-off depot for rural households	Residential Leaf and Yard Waste Collection Seasonal separate collection of leaf and yard waste Drop-off depot for leaf and yard waste

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and coperative housing complexes  Vermi-composting for multi-family households	A proportion of residents in each municipality are willing to pay onethird the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher costs, for composters or for those who have not purchased a composter.	· Support promotion of composting.	A proportion of residents in each municipality are willing to pay one-third the cost of backyard composters and appear willing to accept municipal expenditures for education/promotion. Uncertain of acceptance of higher costs, for composters or for those who have not purchased a composter.
Other Residential Waste Diversion (IHIW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees  Special and weekly curbside collections of white goods  Drop-off depots for white goods  Drop-off depots for white goods  Special curbside collection for bulky items  Permanent drop-off depot for HHW  Special HHW drop-off days  Toxic Taxi service  Mobile HHW depots	Uncertain of the willingness to pay for white goods and HHW collection. Willing to pay for depots.	Region/Province to examine product stewardship for white goods.     Region/Province to examine effectiveness of HIW management, and examine possibilities for joint programs with private sector.	Municipalities may be less willing to pay the cost of white goods and HIIW pick up.

Component Net Effects	Region and residents continue to fund the existing leaf and yard waste composting facilities. If household "wet" waste is to be added, there will be a need for increased capacity and therefore increased costs. Regions and residents may be unwilling to pay these costs.	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.	Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and increased sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs.
Mitigation/Enhancement	Education program to address the benefits and the need for composting facilities.	. Mitigation not required	Education program to address the benefits and the need for recycling facilities.
Potential Effects	Region and residents continue to fund the existing leaf and yard waste composting facilities. If household "wet" waste is to be added, there will be a need for increased capacity and therefore increased costs. Regions and residents may be unwilling to pay these costs.	Some people are willing to purchase use goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.	Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs.
Component Category/Components	Composting Facilities  Central composting facilities (invessel or windrow) for composting of source separated household organic (wet stream)  Centralized windrow composting of leaf and yard waste	Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days	Public MRFs  New MRF or improve/expand existing MRFs to process larger dry stream of recyclable

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling Depots and Transfer Stations	-		
Drop-off depot for dry recyclable     Depots located at transfer stations/landfills	Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and increased sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs.	Education program to address the benefits and the need for recycling facilities.	Local governments and residents appear willing to pay for the facilities. If household "dry" waste is to be sorted, there will be a need for increased capacity and increased sorting capability and therefore increased costs. Regions and residents may be unwilling to pay these costs.
Residential Promotion and Education  Promotion/education program for wet/dry system  Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumer education program	<ul> <li>Local government and residents are likely to support this activity.</li> </ul>	<ul> <li>Programs should be linked to a public consultation program to address the specific needs of each region.</li> </ul>	Local government and residents likely to continue to support this activity.







# GENERIC COMPONENTS NET EFFECTS TABLE H12.1

: Social Acceptability MUNICIPALITY: GTA CRITERION

System: Residential Mixed Waste Processing Indicator: Participation in 3R's by Individuals, Municipalities, IC&I Sector, Special and Sensitive Groups

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects	
Garbage Collection and Disposal				
· Curbside Collection of residential	. No effect	· Mitigation not required	. No effect	
garbage from single family dwellings				
multi-family units				
· Self haul of garbage				
· Regional recycling legislation				
· Drop-off depot for rural households				_

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Recycling and Collection			
· Curbside collection of Blue Box	High participation rates but vary with	To encourage apartment dwellers to	Potentially greater participation
Expanding curbside collection	ND).	and block volunteer approach	largest gains in multi-family, lower
Collection of bins of recyclables from	· Greatest participation by single family	(Bagby, 1993) and ensure distribution	socio-economic and ethnic groups.
multi-family units Drop-off denot for multi-family	residences (Gale, 1990; Environics, 1990; Hav. ND).	of clear information (Hager, 1992; Spaccarelli, 1990).	Some residents are likely to decide not to source senarate some or all
residents not serviced by recycling	· Some groups (e.g., lower SES) and	. Work with apartment building	of their recylables and food waste
· Community recycling centres	households potentially less	owners/managers to develop most	knowing that it will be separated
· Recycling at all multi-family buildings	accepting/willing to participate	appropriate collection system (Von	for them at the central Mixed
of greater than 6 units	(Lansana, 1992; Howenstine, 1993;	Mirbach, 1993; Hager, 1990).	Waste Processing and Composting
Blue Box recycling mandated	Everett et al., 1992; Environics, 1990;	· Additional measures (e.g., block-	facility.
Engineered recycling depot	Hay, ND).	leader approaches) may be needed	<ul> <li>Mixed waste processing conflicts</li> </ul>
· Drop-off depot for rural households	· Will allow residents of multiple-family	to involve different ethnicities and	with a philosophy of personal
	residences the opportunity to	· Iower SES groups (Bagby, Diangson	involvement in 3Rs; some
	participate resulting in an overall	and Patterson, 1992; Burn, 1991;	municipalities may not want to be
	increase in participation.	Everett et al., 1992; Howenstine,	involved on that basis.
	· Some residents are likely to decide not	1993; Lansana, 1991; Hager, 1992).	
	to source separate some or all of their	· Modify program as required to	
	recyclables and food waste knowing	address concerns of elderly (Bagby,	
	that it will be separated for them at	1993).	
	the central Mixed Waste Processing		
	and Composting facility.		
	· Mixed waste processing conflicts with		
	a philosophy of personal involvement		
	in 3Rs; some municipalities may not		
	waiit to be involved on that dasis.		

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection			
Curbside collection of leaf and yard waste     Drop-off depot for leaf and yard waste	General acceptance of the collection although there is some confusion for the resident on how/when to place yard waste for pick up.  Drop-off of leaf and yard waste unlikely on a large scale due to	· Spring, Summer, and Fall reminders to low density residences and apartment superintendents.	General acceptable of collection Drop-off will not be undertaken by many.
Recidential Household Compacting	inconvenience.		
Door-to-door distribution of backyard compositers to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households	Residential composting participation is possible with those who have the facilities (Environics, 1990). It may be limited to physically mobile people with yard space. A high proportion of those with backyard composters use them.  Vermicomposting has not met with wide acceptance and appears to have low rates of participation.  Participation in community composting is uncertain.	Continue subsidies of units, provide home delivery and provide multilingual instruction for household composters. Support residents in multiple-family dwellings and support with promotion/education program and consultation program to define the best composting system for each building. Support community composting with strong education/promotion and back up with proper management and community involvement in operations.	Expanded participation household composting in low, medium and high density residential areas. Vermicomposting has not met with wide acceptance and appears to have low rates of participation. Participation in community composting is uncertain.

Component Net Effects	Increased participation by individuals, higher cost for municipalities for 3Rs.	. No effect	Short term growth in shipping at reuse centres. Longer term uncertain.
Mitigation/Enhancement	Provide call-in pick-up service for white goods.	· Mitigation not required	Support with promotion/education program emphasising the benefits of reuse.     Province to consider tax reduction (sales or income tax) for the purchase of used goods.
Potential Effects	Residents of municipalities without white goods collection may not be willing/able to drop off white goods. Greater participation by individuals in pick-up services (eg. toxic taxis, mobile HHW depots, white goods collection).	Municipalities may be hesitant to participate in Mixed Waste Processing systems because of potentially higher costs of this system.	In short term increasing awareness of availability of reusable goods. Longer term demand for used goods uncertain.
Component Category/Components	Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bulky items Permanent drop-off depot for HHW Special HHW drop-off days Toxic Taxi service Mobile HHW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste In-vessel compósting of source separated organics New mixed waste processing and composting facility	Reuse Centres and Activities  Municipal reuse centre  Private reuse centre  Non-profit reuse centre  Charitable reuse centres  Food reuse organization  Special goods exchange days

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
· Processing centre for dry recyclables	· No effect	Mitigation not required	. No effect
Residential Recycling Depots and Transfer Stations	-		
Drop-off depot for dry recyclables  Depots located at transfer stations	No effect	Mitigation not required	· No cffect
Residential Promotion and Education			
Promotion/education program for source reduction/pre-cycling, reuse and recycling  3Rs promotion and education program  Consumèr education program	Generally acceptable and important to maintaining and increasing participation. Indications from response to hot lines, etc. is that people want more information (Environics, 1990)(Watson, 1993).	Expand and refine promotion/cducation programs as required based on changing demographics, ethnic/language groups (Bagby, Diangson, and Patterson, 1992).  Promotional/Education programs should be based on the successful programs identified in the 3Rs literature (e.g., Folz and Hazlett, 1990). For example, pamphlets & brochures (in utility bills, etc.) and community information meetings. The role of the schools could be critical, particularly for new Canadians whose children are receiving the only English instruction in the family. Many school boards have environmental education committees and the schools are increasingly being led by Principals and Vice-Principals with an environmental message.	Potentially positive effect through increased participation in 3Rs activities.



# TABLE H12.2 GENERIC COMPONENTS NET EFFECTS

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System: Residential Mixed Waste Processing Indicator: Attitudes and perception to 3Rs Activities

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings  Collection of residential garbage from multi-family units  Self haul of garbage  Regional recycling legislation  Drop-off depot for rural households	· No effect	· Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials  Expanding curbside collection Collection of bins of recyclables from multi-family units  Drop-off depot for multi-family residents not serviced by recycling  Community recycling centres Recycling at all multi-family buildings of greater than 6 units Blue Box recycling mandated Engineered recycling mandated Engineered recycling depot Drop-off depot for rural households	Drop-off for multi family and single family not as convenient but acceptance dependent on location and hours of operation of depot.  Provision of recycling service to all apartments over 6 units should provide long term support for 3Rs and should increase waste diversion. In particular if apartment owners/managers are able to choose the system for their building.	Continue to support with promotion/education programs. Ensure convenience of system to maintain positive attitudes. Programs designed its specific community groups (i.e. sensitive to ethnic and language diversity) may lead to more positive attitudes.	Provision of recycling service to all apartments over 6 units should provide long term support for 3Rs and should increase waste diversion. In particular if apartment owners/managers are able to choose the system for their building.

Component Net Effects	Could reduce the amount of composting of leaf and yard waste done on-site.	General growth in positive attitudes to 3Rs supported by household composting.  Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.
Mitigation/Enhancement	<ul> <li>Spring, summer and fall reminders to low density residences and apartment superintendents.</li> </ul>	Provide promotion/education program and consultation program for multi-family residences. Positive attitudes towards compositing will be enhanced, provided the nuisance concerns (see Broad Social Impact) are mitigated.
Potential Effects	General acceptance of the collection, although there is some confusion for the resident on how/when to place yard waste for pick up. May reduce the amount of back yard composting undertaken.  Unlikely that many residents will dropoff leaf and yard waste.	Acceptable for low density family households. Continued use and acceptance anticipated. Evidence of acceptance for multi-family residents uncertain. Vermicomposting has not been accepted on a large scale; indications are that it may not be accepted in the long term.  Potential for multi-family residents to object to composting if odour, insect and rodent problems and health concerns persist.
Components Category/Components	Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard waste Drop-off depot for leaf and yard waste	Residential Household Composting  Door-to-door distribution of backyard composters to 80% of single family households  Large 3-bin composting units distributed to apartment and cooperative housing complexes  Vermi-composting for multi-family households

Components Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Other Residential Waste Diversion (HHW, Toxic Taxi, Pilot Wet/Dry, White Goods Collection, White Goods Drop- Off, etc.)	-		
Special curbside collections of Christmas trees     Special and weekly curbside collections of white goods     Dron-off denotes for white goods	HHW collection and drop-off days have a positive effect as social awareness is created about household hazardous waste.  Could by concerns preparting soills by	Finsure public consultation and participation to address concerns related to HHW.	Potentially a positive attitudinal effect
Special curbside collection for bulky items	the toxic taxi and mobile HHW depot, but generally people are familiar with		
Permanent drop-off depot for HHW     Special HHW drop-off days	HHW and accepting of its management.  Possible concerns about the costs of		
· Toxic Taxi service · Mobile HHW depots	providing toxic taxi service and white goods collection; there may be more		
	economical ways of managing the material.		
	Possible short-term concerns about reductions in white goods collection.		
Composting Facilities			
Centralized windrow composting of leaf and yard waste	· Existing facilities are likely to become less favourable if odour and health	· Ensure public consultation and participation as part of the siting	· Existing facilities are likely to become less favourable if odour
In-vessel composting of source	issues are not resolved in the near term.	and monitoring process, and to	and health issues are not resolved
separated organics New mixed waste processing and	Greater environmental awareness	address concerns related to	in the near term.
composting facility	practising composting (e.g. Campbells Soup).	cannot game and a second	to very negative attitudes and perceptions.

Positive public and municipal attitudes, socially and environmentally beneficial. Should reinforce positive attitudes to the 3Rs.
<ul> <li>Currently acceptable. Traffic, noise and litter issues may reduce the acceptability of some facilities, depending on location.</li> </ul>
Encourages positive attitudes and perceptions that the individual/family can contribute to the solution.
Increase awareness of the need for and benefits of 3Rs. Will motivate people to participate.     Consumer education will promote change in shopping for changes in product design (durable, repairable) and packaging (reduction and recyclable).

# GENERIC COMPONENTS NET EFFECTS TABLE H12.3

MUNICIPALITY: GTA
CRITERION: Social Acceptability

System: Residential Mixed Waste Processing Indicator: Willingness to Pay

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Garbage Collection and Disposal  Curbside Collection of residential garbage from single family dwellings Collection of residential garbage from multi-family units Self haul of garbage Regional recycling legislation Drop-off depot for rural households	. No effect	Mitigation not required	. No effect
Residential Recycling and Collection  Curbside collection of Blue Box materials Expanding curbside collection Collection of bins of recyclables from multi-family units Drop-off depot for multi-family residents not serviced by recycling Community recycling centres Recycling at all multi-family. buildings of greater than 6 units Blue Box recycling mandated Engineered recycling depot Drop-off depot for rural households	Residents and municipalities are wiling to pay part of the cost of operating the collection system. Uncertain if all municipalities in region are willing to continue existing funding arrangements or willing to accept a reduction in subsidies. Increased costs for Landlord of providing recycling services likely to be passed on to tenants in rent increases. Willingness of tenants to pay increased rent is unknown.	The region could provide advice/audits to apartment owners on the best and lowest cost recycling opportunities.	In short term uncertain if tenants and landlords are willing to assume additional costs for recycling services. Residents and municipalities are willing to pay part of the cost of operating the collection system.

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Residential Leaf and Yard Waste Collection Curbside collection of leaf and yard	Possible future concerns about the	· Mitigation not required	Possible future concerns about the
waste Drop-off depot for leaf and yard waste	cost or teat and yate waste collection and composting and the willingness of residents and municipalities to pay for collection and composting.		cost of feat and yard waste collection and composing and the willingness of residents and municipalities to pay for collection and compositing.
Residential Household Composting			
· Door-to-door distribution of backyard composters to 80% of	A proportion of residents in each municipality are willing to pay one-	Support promotion of composting with educational of benefits.	A proportion of residents in each municipality are willing to pay one-
single tamily households  Large 3-bin composting units distributed to anartment and co-	third the cost of backyard composters and appear willing to accept	Continue/increase subsidy for composters.	third the cost of backyard composters and appear willing to accept municipal
operative housing complexes  Vermi-composting for multi-family	education/promotion. Uncertain of acceptance of higher cost, for		Uncertain of acceptance of higher cost, for composters or for those who
households	composters or for those who have not purchased a composter.		have not purchased a composter.

Component Net Effects	Municipalities may be less willing to pay the cost of white goods pick up and HIIW.	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.
Mitigation/Enhancement	Region/Province to examine product stewardship for white goods. Region/Province to examine effectiveness of HIHW management, and examine possibilities for joint programs with private sector.	Education program to address the benefits and the need for composting facilities.	· Mitigation not required
Potential Effects	Uncertain of the willingness of municipalities to-pay for white goods and HHW collection. Willing to pay for depots.	Region and residents continue to fund the leaf and yard waste composting facilities. In the longer term the higher costs of locating and operating a composting facility may become an issue for some people.	Some people are willing to purchase used goods. If centres become convenient and shopping experiences acceptable, more people may be willing to pay for used items.
Component Category/Components	Other Residential Waste Diversion' (IIIIW, Toxic Taxi, Pilot Wet/I)ry, White Goods Collection, White Goods Drop-Off, etc.)  Special curbside collections of Christmas trees Special and weekly curbside collections of white goods Drop-off depots for white goods Special curbside collection for bliky items Permanent drop-off depot for IIIW Special HIW drop-off days Toxic Taxi service Mobile IIIW depots	Composting Facilities  Centralized windrow composting of leaf and yard waste  Drop-off depot for leaf and yard waste	Reuse Centres and Activities  Municipal reuse centre Private reuse centre Non-profit reuse centre Charitable reuse centres Food reuse organization Special goods exchange days

Component Category/Components	Potential Effects	Mitigation/Enhancement	Component Net Effects
Public MRFs			
Processing centre for dry recyclables	<ul> <li>Local government and residents appear willing to pay for the facilities provided subsidies continue.</li> </ul>	Subsidies from private sector or government	Local government and residents appear willing to pay for the facilities provided subsidies continue
Residential Recycling Depots and Transfer Stations			
Drop-off depot for dry recyclables     Depots located at transfer stations	<ul> <li>Local government and residents appear willing to pay for the facilities provided subsidies continue.</li> </ul>	Subsidies from private sector or government	Local government and residents appear willing to pay for the facilities provided subsidies continue
Residential Promotion and Education			
Promotion/education program for source reduction/pre-cycling, reuse and recycling     3Rs promotion and education program	<ul> <li>Local government and residents likely to continue to support this activity.</li> </ul>	Programs should be linked to a public consultation program to address the specific needs of each region.	Local government and residents likely to continue to support this activity



